ANVIL INTERNATIONAL, INC.

Pipe Fittings Catalog

ANVIL INTERNATIONAL, INC.

PIPE FITTINGS

Steel • Cast Iron • Malleable

SOLID
PRODUCTS.

SOLID
SUPPORT.

ANVIL INTERNATIONAL, INC.

The Largest and Most Complete Fitting and Hanger Manufacturer in the World

CORE MARKETS

From plumbing, mechanical, and fire protection, to mining, oil and gas, and OEMs, our ability to provide effective solutions directed at individual markets is unmatched in the industry. Innovative responses designed to meet specific demands, and more than 150 years of experience, insight, and understanding, ensures you have the right quality product for your application.

QUALITY

Our ISO 9000 manufacturing facilities produce a package of products unmatched by any other single manufacturer, while setting an industry standard for dependability and effectiveness recognized around the world. It's a standard that has made our products, and our name, synonymous with the word "quality" itself.

WHOLESALE DISTRIBUTION

Anvil is dedicated to the distribution channel and to our wholesale customers, enhancing the already strong and vital relationships we've established together over the years.

CUSTOMER SERVICE AND SUPPORT

Responsive customer support and service can mean the difference between simply delivering products to you, and delivering solutions. That's why we offer on-site technical assistance and training, engineers on call, and fast, accurate responses to customer inquiries. Plus, improved inventory control and operating efficiencies at our Regional Service Centers mean improved productivity, accuracy, and turnaround times.

ANVIL'S HISTORY

Anvil International can trace its roots back to the mid-1800s. As we've evolved—from Grinnell Supply Sales and Manufacturing to Anvil—we've earned a global reputation for quality, effective products you can trust. We will build on the solid foundation of our past by continuing to provide the highest level of critical service and support, R&D, and the most complete package of fittings, couplings, hangers, and supports in the world.

ANVIL PRODUCT LINES

- Malleable Iron Fittings & Unions
- Cast Iron Fittings & Flanges
- Forged Steel Fittings, Unions & Couplings
- Welded & Seamless Pipe Nipples
- Steel Couplings
- Pipe Hangers & Supports
- Engineered Hangers
- Strut & Strut Fittings
- GRUVLOK Couplings, Fittings & Valves
- JBS™ J.B. Smith Swage Nipples & Bull Plugs
- Catawissa™ Unions
- Mueller Canada Tee-Offs
- Mueller Co. UL-FM Valves
- MERIT Drop Nipples

Our products have earned your trust. Our company will keep it.

J. B. Smith Oil Country

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J. B. Smith Oil Country Products

J.B. Smith oil country tubular fittings, swages and bull plugs add an important dimension to the industry's leading line of flow control products offered by Anvil. J.B. Smith is a respected name and its products are well known for high quality and consistency.

Full Traceability

All J.B. Smith swages, bull plugs, tubing and casing nipples, and chambers are traceable to the original mill test report. To ensure traceability, all fittings are steel stamped as follows:

Material Specification

- ❑ WPB (Line Pipe Only)
- ❑ J-55, N80, L-80, etc. (oil country sizes)

Raw Material Code

Each is stamped with a three letter code for identifying raw material type, details of purchase and mill test report.

Heat Treatment

When marked WPB, an acceptable heat treatment is understood to have been performed. Fittings, cold or hot formed from pipe, bear an additional two letter code for final heat treatment traceability.

All J.B. Smith product conforms to the following specifications:.

- ❑ ***API 5B*** – Threading
- ❑ ***API 5CT*** – License - End Finishings, Raw Material
- ❑ ***ASME B16.9*** –Weld Bevels
- ❑ ***MSS-SP-95*** - Swages and Bull Plugs
- ❑ ***ASTM A234A-00 WPB*** – Heat Treatment, Raw Materials
- ❑ ***ASTM B633-86 Type III Class III*** – Zinc Electroplate
- ❑ ***CHARPY IMPACT*** - As Required
- ❑ ***NACE – MR-01-75*** - As Required
- ❑ ***DNV*** – As Required
- ❑ ***ISO 9000***

Swage Nipples, Bull Plugs, Oil Country Fittings, Couplings, Stainless Swages

MANUFACTURING SPECIFICATION

J.B. Smith manufactures swage nipples and bull plugs in accordance with A234 and MSS-SP-95, from A-106 Grade B seamless pipe and A-1000 series, low to medium carbon, fine grain bar stock, and heat treated to these specifications. The chemical and physical properties of the raw material fall within the ranges listed below.

All fittings are manufactured in the U.S.A.

TRACEABILITY

All raw material purchased by J.B. Smith is fully traceable to the mill source. A three digit letter code appears on all Smith products made since the institution of this program. As a result, mill test reports are now available at any time on products so coded. (See EXTRAS for MTR charges.)

PRESSURE RATINGS

Due to the wide variation in service conditions, temperature, vibrations, etc., J.B. Smith Mfg. can make no recommendations as to allowable working pressure of swage nipples and bull plugs. There are a number of working pressure formulas from which the end user may choose to determine the required wall thickness of the piping system. It is our responsibility only to furnish a fitting with end dimensions equal to those of the pipe size and schedule ordered.

MATERIAL CERTIFICATION – CARBON STEEL

J.B. Smith certifies that the material used to manufacture line pipe sizes of swage nipples and bull plugs has been processed to comply with all requirements of ASTM A234A-00 WPB and the chemical and physical properties of the raw material fall within the ranges listed below.

MARKING

All J.B. Smith fittings are permanently marked as follows:

- ***Manufacturer's Symbol*** - JBS
- ***Material Specification***
  WPB (Line Pipe Sizes)
  J-55, N80, L-80, etc. (Oil Country Sizes)
- ***Raw Material Code*** - Each part is die stamped with a three letter code identifying the raw material type, details of purchase and steel mill test report.
- ***Heat Treatment*** - Heat treatments are performed to ASTM A234A-00 WPB.

  All oil country sizes formed from pipe have been normalized but are unmarked to avoid confusion with the symbol N-80.

  Fittings cold or hot formed from pipe and bar fittings bear an additional two letter code indicating the hour and day the part received final heat treatment.
- ***Label information*** - Size and Wall Thickness.

THREADING

Line pipe, tubing and casing are in conformance with API 5B.

COATINGS

- ***Zinc Electroplate*** – ASTM B633-86 Type III Class III
- ***Paint*** (Beveled Ends)

WELD BEVELS

Weld Bevels are machined as per ASME B-16.9

A234A-00 WPB Chemical Composition Requirements										
C	MN	P	S	SI	CR	MO	NI	CU	V	CB
.30 Max	.29 - 1.06	.05 Max	.058 Max	.10 Min	.40 Max	.15 Max	.40 Max	.40 Max	.08 Max	.02 Max

Note:

- Fittings made from bar or plate may have 0.35 Max Carbon.
- Fittings made from forgings may have a 0.35 Max Carbon and 0.35 Max Silicon.
- For each reduction of 0.01% below the specified carbon maximum, an increase of 0.06% manganese above the specified maximum will be perfmitted, up to a maximum of 1.35%.
- The sum of Copper, Nickel Chromium and Molybdenum shall not exceed 1.00%.
- The sum of Chromium and Molybdenum shall not exceep 0.32%.

Marking Symbol	A234A-00 WBP - Physical Requirements		
	Tensile	Yield	HBN
JBS	60,000 - 85,000 PSI	35,000 PSI Min	197 Max

Note:

- Elongation: As stated in A234A-00.

Carbon Steel — Swage Nipples

Line Pipe Swages

- ❑ Size range 1/8 - 8 NPS *(6 - 200 DN)*
- ❑ Manufactured from A106 Grade B seamless pipe or hex bar which is heat treated in accordance with ASTM A234 WPB
- ❑ Choice of raw material dependent upon size and reduction.
- ❑ Available standard, extra heavy, double extra heavy or schedule 160
- ❑ End finishes available: current API threads, beveled, square cut (for socket-weld), or grooved
- ❑ Available concentric and eccentric
- ❑ 1" *(25mm)* and smaller are made out of hex bar
- ❑ 1 1/4" *(32mm)* and larger are made out of pipe

Concentric Swage Nipples	Size						Length		Standard Weight		XS/XH Weight		XXS/XXH & Sch. 160 Weight	
	Pipe		API or O.D.		Reduced To Size									
	NPS	DN	in	mm	NPS	DN	in	mm	lbs	kg	lbs	kg	lbs	kg
	1/4	8	0.540	14	1/8	6	2 1/4	57	–	–	–	–	0.25	0.11
	3/8	10	0.675	17	1/8	6	2 1/2	64	–	–	0.25	0.11	0.38	0.17
					1/4	8	2 1/2	64	–	–	0.25	0.11	0.38	0.17
	1/2	15	0.840	21	1/8	6	2 3/4	70	–	–	0.33	0.15	0.50	0.23
					1/4 and 3/8	8 and 10	2 3/4	70	–	–	0.33	0.15	0.50	0.23
	3/4	20	1.050	27	1/8	6	3	76	–	–	0.50	0.23	0.75	0.34
					1/4 and 3/8	8 and 10	3	76	–	–	0.50	0.23	0.75	0.34
					1/2	15	3	76	–	–	0.50	0.23	0.75	0.34
	1	25	1.315	33	1/8	6	3 1/2	89	–	–	0.66	0.30	1.00	0.45
					1/4 and 3/8	8 and 10	3 1/2	89	–	–	0.66	0.30	1.00	0.45
					1/2 and 3/4	15 and 20	3 1/2	89	–	–	0.66	0.30	1.00	0.45
	1 1/4	32	1.660	42	1/4 and 3/8	8 and 10	4	102	–	–	1.00	0.45	1.5	0.68
					1/2 and 3/4	15 and 20	4	102	–	–	1.00	0.45	1.5	0.68
					1	25	4	102	–	–	1.00	0.45	1.5	0.68
	1 1/2	40	1.900	48	1/4 and 3/8	8 and 10	4 1/2	114	–	–	1.2	0.53	2.0	0.91
					1/2 and 3/4	15 and 20	4 1/2	114	–	–	1.2	0.53	2.0	0.91
					1	25	4 1/2	114	–	–	1.2	0.53	2.0	0.91
					1 1/4	32	4 1/2	114	–	–	1.2	0.53	2.0	0.91
	2	50	2 3/8	60	1/4 and 3/8	8 and 10	6 1/2	165	–	–	3.0	1.4	4.3	1.9
					1/2 and 3/4	15 and 20	6 1/2	165	–	–	3.0	1.4	4.3	1.9
					1	25	6 1/2	165	2.0	0.91	2.3	1.1	4.3	1.9
					1 1/4	32	6 1/2	165	2.0	0.91	2.3	1.1	4.3	1.9
					1 1/2	40	6 1/2	165	2.0	0.91	2.3	1.1	4.3	1.9
	2 1/2	65	2 7/8	73	1/2 and 3/4	15 and 20	7	178	–	–	3.5	1.6	8.0	3.6
					1	25	7	178	3.0	1.4	3.5	1.6	8.0	3.6
					1 1/4	32	7	178	3.0	1.4	3.5	1.6	8.0	3.6
					1 1/2	40	7	178	3.0	1.4	3.5	1.6	8.0	3.6
					2	50	7	178	3.0	1.4	3.5	1.6	8.0	3.6
	3	80	3 1/2	89	1/2 and 3/4	15 and 20	8	203	–	–	6.0	2.7	11	5.0
					1	25	8	203	4.5	2.0	6.0	2.7	11	5.0
					1 1/4	32	8	203	4.5	2.0	6.0	2.7	11	5.0
					1 1/2	40	8	203	4.5	2.0	6.0	2.7	11	5.0
					2 and 2 1/2	50 and 65	8	203	4.5	2.0	6.0	2.7	11	5.0

Note: See page PF-6 for certification of raw material and marking.

Select sizes of 1 NPS *(25 DN)* and smaller swages in XS/XH and Schedule 160 weights available in A106.

All sizes on this page have been processed in a manner strictly conforming to the requirements of ASTM A234 from material fully meeting all requirements of that specification. The correct marking for swage nipples to denote conformance with this specification is "WPB".

All sizes 1 NPS *(25 DN)* and smaller will be made from hex barstock. Most sizes 1 1/4 NPS *(32 DN)* and larger will be made from pipe, and where pipe is not a practical raw material, round barstock will be used. No sacrifice of properties will result from such practice.

Concentric Swage Nipples	Size						Length		Standard Weight		XS/XH Weight		XXS/XXH & Sch. 160 Weight	
	Pipe		API or O.D.		Reduced to Size									
	NPS	DN	in	mm	NPS	DN	in	mm	lbs	kg	lbs	kg	lbs	kg
	3½	90	4	100	½ thru 1½	15 thru 40	8	203	5.5	2.5	7.5	3.4	14	6.1
					2 thru 3	50 thru 80	8	203	5.5	2.5	7.5	3.4	14	6.1
	4	100	4½	114	½ and ¾	15 and 20	9	229	–	–	10.0	4.5	18	8.2
					1	25	9	229	7.5	3.4	10.0	4.5	18	8.2
					1¼ and 1½	32 and 40	9	229	7.5	3.4	10.0	4.5	18	8.2
					2	50	9	229	7.5	3.4	10.0	4.5	18	8.2
					2½	65	9	229	7.5	3.4	10.0	4.5	18	8.2
					3 and 3½	80 and 90	9	229	7.5	3.4	10.0	4.5	18	8.2
	5	125	5⁹⁄₁₆	140	1 thru 1½	25 thru 40	11	279	12	5.2	17	7.7	33	15
					2 and 2½	50 and 65	11	279	12	5.2	17	7.7	33	15
					3 and 3½	80 and 90	11	279	12	5.2	17	7.7	33	15
					4	100	11	279	12	5.2	17	7.7	33	15
	6	150	6⅝	168	1 thru 1½	25 thru 40	12	305	17	7.7	25	11	46	21
					2 and 2½	50 and 65	12	305	17	7.7	25	11	46	21
					3 and 3½	80 and 90	12	305	17	7.7	25	11	46	21
					4	100	12	305	17	7.7	25	11	46	21
					5	125	12	305	17	7.7	25	11	46	21
	8	200	8⅝	219	2 thru 3	50 thru 80	13	330	29	13	44	20	78	35
					4 and 5	100 and 125	13	330	29	13	44	20	78	35
					6	150	13	330	29	13	44	20	78	35

Note See page PF-6 for certification of raw material and marking.

Carbon Steel - Swage Nipples

Eccentric Swage Nipples	Size						Length		Standard Weight		XS/XH Weight		XXS/XXH & Sch. 160 Weight	
	Pipe		API or O.D.		Reduced to Size									
	NPS	DN	in	mm	NPS	DN	in	mm	lbs	kg	lbs	kg	lbs	kg
	¼	8	0.540	14	⅛	6	2¼	57	–	–	0.16	0.07	0.25	0.11
	⅜	10	0.675	17	⅛	6	2½	64	–	–	0.25	0.11	0.38	0.17
					¼	8	2½	64	–	–	0.25	0.11	0.38	0.17
	½	15	0.840	21	¼ and ⅜	8 and 10	2¾	70	–	–	0.33	0.15	0.50	0.23
	¾	20	1.050	27	¼ and ⅜	8 and 10	3	76	–	–	0.50	0.23	0.75	0.34
					½	15	3	76	–	–	0.50	0.23	0.75	0.34
	1	25	1.315	33	¼ and ⅜	8 and 10	3½	89	–	–	0.66	0.30	1.00	0.45
					½ and ¾	15 and 20	3½	89	–	–	0.60	0.27	1.00	0.45
	1¼	32	1.660	42	½ and ¾	15 and 20	4	102	–	–	1.00	0.45	1.5	0.68
					1	25	4	102	–	–	1.00	0.45	1.5	0.68
	1½	40	1.900	48	½ and ¾	15 and 20	4½	114	–	–	1.2	0.53	2.0	0.91
					1	25	4½	114	–	–	1.2	0.53	2.0	0.91
					1¼	32	4½	114	–	–	1.2	0.53	2.0	0.91
	2	50	2⅜	60	¼ and ⅜	8 and 10	6½	165	–	–	3.0	1.4	4.3	1.9
					½ and ¾	15 and 20	6½	165	–	–	3.0	1.4	4.3	1.9
					1	25	6½	165	2.0	0.91	2.3	1.1	4.3	1.9
					1¼	32	6½	165	2.0	0.91	2.3	1.1	4.3	1.9
					1½	40	6½	165	2.0	0.91	2.3	1.1	4.3	1.9
	2½	65	2⅞	73	1	25	7	178	–	–	3.5	1.6	8.0	3.6
					1¼	32	7	178	3.0	1.4	3.5	1.6	8.0	3.6
					1½	40	7	178	3.0	1.4	3.5	1.6	8.0	3.6
					2	50	7	178	–	–	3.5	1.6	8.0	3.6
	3	80	3½	89	½ and ¾	15 and 20	8	203	–	–	6.0	2.7	11	5.0
					1	25	8	203	4.5	2.0	6.0	2.7	11	5.0
					1¼	32	8	203	4.5	2.0	6.0	2.7	11	5.0
					1½	40	8	203	4.5	2.0	6.0	2.7	11	5.0
					2 and 2½	50 and 65	8	203	4.5	2.0	6.0	2.7	11	5.0
	3½	90	4	102	All reductions	All reductions	8	203	5.5	2.5	7.5	3.4	14	6.1
	4	100	4½	114	1	25	9	229	7.5	3.4	10.0	4.5	18	8.2
					1¼ and 1½	32 and 40	9	229	7.5	3.4	10.0	4.5	18	8.2
					2	50	9	229	7.5	3.4	10.0	4.5	18	8.2
					2½	65	9	229	7.5	3.4	10.0	4.5	18	8.2
					3 and 3½	80 and 90	9	229	7.5	3.4	10.0	4.5	18	8.2

Note See page PF-6 for certification of raw material and marking.
Sizes not shown - P.O.A.

Stainless Steel - Stainless Swages

Stainless & Alloy Steel Swage Nipples	Sch. 40 , 304 Stainless Steel				Sch. 40 , 316 Stainless Steel			
	Size		Length		Size		Length	
	NPS	DN	in	mm	NPS	DN	in	mm
	¼ x ⅛	8 x 6	2¼	57	¼ x ⅛	8 x 6	2¼	57
	⅜ x ¼	10 x 8	2½	64	⅜ x ¼	10 x 8	2½	64
	½ x ¼	15 x 8	2¾	70	½ x ¼	15 x 8	2¾	70
	½ x ⅜	15 x 10	2¾	70	½ x ⅜	15 x 10	2¾	70
	¾ x ¼	20 x 8	3	76	¾ x ¼	20 x 8	3	76
	¾ x ⅜	20 x 10	3	76	¾ x ⅜	20 x 10	3	76
	¾ x ½	20 x 15	3	76	¾ x ½	20 x 15	3	76
	1 x ¼	25 x 8	3½	89	1 x ¼	25 x 8	3½	89
	1 x ½	25 x 15	3½	89	1 x ½	25 x 15	3½	89
	1 x ¾	25 x 20	3½	89	1 x ¾	25 x 20	3½	89
	1¼ x ½	32 x 15	4	102	1¼ x ½	32 x 15	4	102
	1¼ x ¾	32 x 20	4	102	1¼ x ¾	32 x 20	4	102
	1¼ x 1	32 x 25	4	102	1¼ x 1	32 x 25	4	102
	1½ x ½	40 x 15	4½	114	1½ x ½	40 x 15	4½	114
	1½ x ¾	40 x 20	4½	114	1½ x ¾	40 x 20	4½	114
	1½ x 1	40 x 25	4½	114	1½ x 1	40 x 25	4½	114
	1½ x 1¼	40 x 32	4½	114	1½ x 1¼	40 x 32	4½	114
	2 x ½	50 x 15	6½	165	2 x ½	50 x 15	6½	165
	2 x ¾	50 x 20	6½	165	2 x ¾	50 x 20	6½	165
	2 x 1	50 x 25	6½	165	2 x 1	50 x 25	6½	165
	2 x 1¼	50 x 32	6½	165	2 x 1¼	50 x 32	6½	165
	2 x 1½	50 x 40	6½	165	2 x 1½	50 x 40	6½	165
	2½ x 1	65 x 25	7	178	2½ x 1	65 x 25	7	178
	2½ x 1¼	65 x 32	7	178	2½ x 1¼	65 x 32	7	178
	2½ x 1½	65 x 40	7	178	2½ x 1½	65 x 40	7	178
	2½ x 2	65 x 50	7	178	2½ x 2	65 x 50	7	178
	3 x 1	80 x 25	8	203	3 x 1	80 x 25	8	203
	3 x 1¼	80 x 32	8	203	3 x 1¼	80 x 32	8	203
	3 x 1½	80 x 40	8	203	3 x 1½	80 x 40	8	203
	3 x 2	80 x 50	8	203	3 x 2	80 x 50	8	203
	3 x 2½	80 x 65	8	203	3 x 2½	80 x 65	8	203
	4 x 1	100 x 25	9	229	4 x 1	100 x 25	9	229
	4 x 1¼	100 x 32	9	229	4 x 1¼	100 x 32	9	229
	4 x 1½	100 x 40	9	229	4 x 1½	100 x 40	9	229
	4 x 2	100 x 50	9	229	4 x 2	100 x 50	9	229
	4 x 2½	100 x 65	9	229	4 x 2½	100 x 65	9	229
	4 x 3	100 x 80	9	229	4 x 3	100 x 80	9	229
	4 x 3½	100 x 90	9	229	4 x 3½	100 x 90	9	229

Note: See page PF-6 for certification of raw material and marking.
Other types and sizes available on application.
For other alloy raw material, Consult factory.
Mill test reports furnished upon request only.

Options:

- ❑ E.L.C. Grades of Stainless
- ❑ Eccentrics
- ❑ Schedule 10 - 80
- ❑ Schedule 160 & XXS/XXH

Carbon Steel - Bull Plugs

Carbon Steel Bull Plugs	Size				Length		Standard Weight		XS/XH Weight		Solid Weight		XXS/XXH & Sch.160 Weight	
	Pipe		API or O.D.											
	NPS	DN	in	mm	in	mm	lbs	kg	lbs	kg	lbs	kg	lbs	kg
	⅛	6	0.405	10	2	51	–	–	0.10	0.05	0.20	0.09	0.40	0.18
	¼	8	0.540	14	2	51	–	–	0.11	0.05	0.20	0.09	0.40	0.18
	⅜	10	0.675	17	2¼	57	–	–	0.14	0.06	0.33	0.15	0.28	0.13
	½	15	0.840	21	2½	64	–	–	0.33	0.15	0.50	0.23	0.50	0.23
	¾	20	1.050	27	2¾	70	–	–	0.50	0.23	0.80	0.36	0.75	0.34
	1	25	1.315	33	3	76	–	–	0.66	0.30	1.4	0.63	1.00	0.45
	1¼	32	1.660	42	3¼	83	–	–	1.00	0.45	2.3	1.0	1.5	0.68
	1½	40	1.900	48	3½	89	–	–	1.2	0.53	3.0	1.4	2.0	0.91
	2	50	2⅜	60	4	102	2.3	1.0	2.5	1.1	5.0	2.3	3.5	1.6
	2½	65	2⅞	73	5	127	3.0	1.4	3.5	1.6	–	–	8.0	3.6
	3	80	3½	89	6	152	4.5	2.0	6.0	2.7	–	–	11	5.0
	3½	90	4	102	6½	165	5.5	2.5	7.5	3.4	–	–	14	6.1
	4	100	4½	114	7	178	7.5	3.4	10.0	4.5	–	–	18	8.2
	5	125	5⁹⁄₁₆	141	8½	216	13	5.7	17	7.7	–	–	33	15
	6	150	6⅝	168	10	254	17	7.7	25	11	–	–	46	21
	8	200	8⅝	219	11	279	29	13	44	20	–	–	78	35

Solid Refinery Plugs Black (non-plated) Carbon Steel	Size		Length	
	NPS	DN	in	mm
	⅛	6	3	76
	¼	8	3	76
	⅜	10	3	76
	½	15	3	76
	¾	20	3	76
	1	25	3	76
	1¼	32	3	76
	1½	40	3	76
	2	50	3	76

Smith solid black refinery plugs have been especially designed for refinery use. The body length leaves sufficient length for easy wrench application. Material conforms to ASTM-A 234 Grade WPB.

LINE PIPE BULL PLUGS

- ❑ Nominal Pipe Size range ⅛ - 8 *(6 - 200 DN)*
- ❑ Nominal Pipe Size 2 *(50 DN)* and smaller bull plugs manufactured out of bar which is heat treated in accordance with ASTM A234 WPB
- ❑ Nominal Pipe Size 2½ - 8 *(65 - 200 DN)* bull plugs manufactured out of A106 Grade B seamless pipe using J.B. Smith's unique spinning process which insures uniform wall thickness
- ❑ Bull plugs available in standard, extra heavy, double extra heavy, schedule 160 or solid
- ❑ All Smith bull plugs can be tapped
- ❑ End finishes available: current API threads, beveled for weld, square cut (socket-weld) or grooved

Oil Country Fittings
Current API Thread Standards

Current API Thread Standards					
Size		O.D.		Pipe	Tubing & Casing
NPS	DN	in	mm		
¾	20	1.050	27	14	–
¾ EUE	20	1.050	27	–	10 Rd.
1	25	1.315	33	11½	10 Rd.
1 EUE	25	1.315	33	–	10 Rd.
1¼	32	1.660	42	11½	10 Rd.
1¼ EUE	32	1.660	42	–	10 Rd.
1½	40	1.900	48	11½	10 Rd.
1½ EUE	40	1.900	48	–	10 Rd.
2	50	2⅜	60	11½	10 Rd.
2 EUE	50	2⅜	60	–	8 Rd.
2½	65	2⅞	73	8V	10 Rd.
2½ EUE	65	2⅞	73	–	8 Rd.
3	80	3½	89	8V	10 Rd.
3 EUE	80	3½	89	–	8 Rd.
3½	90	4	102	8V	8 Rd.
3½ EUE	90	4	102	8V	8 Rd.
4	100	4½	114	8V	8 Rd.
4 EUE	100	4½	114	–	8 Rd.
–	–	5	127	–	8 Rd.
–	–	5½	140	–	8 Rd.
5	125	5⁹⁄₁₆	141	8V	–
–	–	6	152	–	8 Rd.
6	150	6⅝	168	8V	8 Rd.
–	–	7	178	–	8 Rd.
–	–	7⅝	194	–	8 Rd.
8	200	8⅝	219	8V	8 Rd.
–	–	9⅝	244	–	8 Rd.
10	250	10¾	273	8V	8 Rd.
–	–	11¾	298	–	8 Rd.
12	300	12¾	324	8V	–
–	–	13⅜	340	–	8 Rd.
–	–	14	356	8V	–
–	–	16	406	8V	8 Rd.
–	–	18	457	8V	–
–	–	20	508	8V	8 Rd.

TUBING SWAGES

- Nominal Sizes 1-4 *(25 - 100 DN)* upset and non-upset ends tubing swages available with any combination of current API threads (8 round, 10 round, 11½v, 8v, etc.) and are stock items in J-55, K-55, N-80 and L-80)
- Wall thicknesses available are standard through double extra heavy
- For different grades of material (stainless, brass, etc.) and different threads, consult factory
- Thread types are color-coded for easy identification

Swage Nipples – Oil Country

Large End Upset Reduced to Regular or Upset	Size		Pipe O.D.		Reduced to Size		Length		Standard Weight		XS/XH Weight		XXS/XXH Weight	
	NPS	DN	in	mm	NPS	DN	in	mm	lbs	kg	lbs	kg	lbs	kg
	1	25	1.315	33	¾	20	3½	89	0.66	0.30	0.66	0.30	–	–
	1¼	32	1.660	42	¾–1	20–25	4	102	1.00	0.45	1.00	0.45	–	–
	1½	40	1.900	48	¾–1¼	20–32	4½	114	1.3	0.57	1.3	0.57	–	–
	2	50	2⅜	60	¼–½–¾	8–15–20	8	203	2.5	1.1	4.0	1.8	6.0	2.7
					1–1¼–1½	25–32–40	8	203	2.5	1.1	4.0	1.8	6.0	2.7
					2 1/16 O.D.	52 O.D.	8	203	2.5	1.1	4.0	1.8	6.0	2.7
	2½	65	2⅞	73	1–1¼–1½	25–32–40	8	203	5.0	2.3	6.0	2.7	10.0	4.5
					2	50	8	203	6.0	2.7	6.0	2.7	10.0	4.5
	3	80	3½	89	1–¼–1½	25–8–40	8	203	7.5	3.4	9.0	4.1	14	6.4
					2–2½	50–65	8	203	7.5	3.4	9.0	4.1	14	6.4
	4	100	4½	114	1–¼–1½	25–8–40	9	229	11	5.0	14	6.4	23	10
					2–2½	50–65	9	229	11	5.0	14	6.4	23	10
					3–3½	80–90	9	229	11	5.0	14	6.4	23	10

- Swage Nipples non-upset on large end are made from J-55, K-55, N-80 or the most appropriate material available.
- Swage Nipples upset on large end are made from J-55 unless otherwise specified

Swage Nipples – Oil Country

Large End Non-Upset Reduced to Upset	Size		Pipe O.D.		Reduced to Size		Length		Standard Weight		XS/XH Weight		XXS/XXH Weight	
	NPS	DN	in	mm	NPS	DN	in	mm	lbs	kg	lbs	kg	lbs	kg
	1	25	1.315	33	¾	20	3½	89	0.66	0.30	0.66	0.30	–	–
	1¼	32	1.660	42	¾–1	20–25	4	102	1.00	0.45	1.00	0.45	–	–
	1½	40	1.900	48	¾–1¼	20–32	4½	114	1.3	0.57	1.3	0.57	–	–
	2	50	2⅜	60	¾	20	6½	165	2.5	1.1	3.5	1.6	5.0	2.3
					1–1¼–1½	25–32–40	6½	165	2.5	1.1	3.5	1.6	5.0	2.3
	2½	65	2⅞	73	1–1¼–1½	25–32–40	7	178	4.0	1.8	6.0	2.7	9.0	4.1
					2	50	7	178	4.0	1.8	6.0	2.7	9.0	4.1
	3	80	3½	89	1–1¼–1½	25–32–40	8	203	6.0	2.7	9.0	4.1	12	5.4
					2–2½	50–65	8	203	6.0	2.7	9.0	4.1	12	5.4
	4	100	4½	114	1–1¼–1½	25–32–40	9	229	8.0	3.6	12	5.4	20	9.1
					2–2½	50–65	9	229	8.0	3.6	12	5.4	20	9.1
					3–3½	80–90	9	229	8.0	3.6	12	5.4	20	9.1
			5½	140	2-3	50	11	279	13	5.7	17	7.7	33	15
			7	178	2-3	50	12	305	17	7.7	25	11	50	23

- Swage Nipples non-upset on large end are made from J-55, K-55, N-80 or the most appropriate material available.
- Swage Nipples upset on large end are made from J-55 unless otherwise specified.

Swage Nipples Oil Country Tubing & Casing non EUE ends	Size						Length		Standard Weight		XS/XH Weight		XXS/XXH Weight	
	Pipe		O.D.		Reduced to									
	NPS	DN	in	mm	NPS	DN	in	mm	lbs	kg	lbs	kg	lbs	kg
	1	25	1.315	33	¼ - ¾	8 - 20	3½	89	0.66	0.30	0.66	0.30	1.00	0.45
	1¼	32	1.660	42	¼ - ½	8 - 15	4	102	1.00	0.45	1.00	0.45	1.5	0.68
					¾ & 1	20 & 25	4	102	1.00	0.45	1.00	0.45	1.5	0.68
	1½	40	1.900	48	¼ - ¾	8 - 20	4½	114	1.2	0.53	–	–	2.0	0.91
					1 & 1¼	25 & 32	4½	114	1.2	0.53	1.00	0.45	2.0	0.91
	2	50	2⅜	60	¼ - ¾	8 - 20	6½	165	2.5	1.1	3.0	1.4	4.3	1.9
					1 - 2 O.D.	25 - 50 O.D.	6½	165	2.0	0.91	2.3	1.1	4.3	1.9
	2½	65	2⅞	73	¼ - ¾	8 - .75	7	178	3.0	1.4	3.5	1.6	8.0	3.6
					1 - 1½	25 - 40	7	178	3.0	1.4	3.5	1.6	8.0	3.6
					2 & 2 1/16	50 - 52	7	178	3.0	1.4	3.5	1.6	8.0	3.6
	3	80	3½	89	1 - 1½	25 - 40	8	203	4.5	2.0	6.0	2.7	11	5.0
					2 & 2½	50 - 65	8	203	4.5	2.0	6.0	2.7	11	5.0
	4	100	4½	114	1 - 1½	25 - 40	9	229	7.0	3.2	10.0	4.5	18	8.2
					2 - 4 O.D.	50 -100 O.D.	9	229	7.5	3.4	10.0	4.5	18	8.2
			5	127	1 - 1½	25 - 40	10	254	9.5	4.3	15	6.8	24	11
					2 - 4½ O.D.	50 - 100 O.D.	10	254	9.5	4.3	15	6.8	24	11
			5½	140	1 - 1½	25 - 40	11	279	13	5.7	17	7.7	33	15
					2 & 2½	50 & 65	11	279	13	5.7	17	7.7	33	15
					3 - 50.D.	80 - 125 O.D.	11	279	13	5.7	17	7.7	33	15
			6⅝	168	1 - 1½	25 - 40	12	305	17	7.7	25	11	46	21
					2 & 2½	50 & 65	12	305	17	7.7	25	11	46	21
					3 - 4 O.D.	80 - 100 O.D.	12	305	17	7.7	25	11	46	21
					4 - 6 O.D.	100 - 150 O.D.	12	305	17	7.7	25	11	46	21
			7	178	1 - 1½	25 - 40	12	305	17	7.7	25	11	–	–
					2 - 2½	50 - 65	12	305	17	7.7	25	11	–	–
					3 - 5 O.D.	80 - 125 O.D.	12	305	17	7.7	25	11	–	–
					5½ O.D. & 6 O.D.	140 O.D. & 150 O.D.	12	305	17	7.7	25	11	–	–
			7⅝	194	2 - 3	5 - 750	13	330	24	11	32	15	–	–
					4 O.D. - 6 O.D.	100 O.D. - 150 O.D.	13	330	24	11	32	15	–	–
					6⅝ O.D. - 7 O.D.	168 O.D. - 175 O.D.	13	330	24	11	32	15	–	–
			8⅝	219	2 - 3	50 - 75	13	330	29	13	44	20	–	–
					4 - 6 O.D.	100 - 150 O.D.	13	330	29	13	44	20		
					6⅝ O.D. & 7 ⅝ O.D.	168 O.D. - 194 O.D.	13	330	29	13	44	20	–	–
			9⅝	244	2 - 3	50 - 75	14	356	38	17	48	22	–	–
					4 - 6 O.D.	100 - 150 O.D.	14	356	38	17	48	22	–	–
					6⅝ O.D. & 8⅝ O.D.	168 O.D. - 219 O.D.	14	356	38	17	48	22	–	–
			10¾	273	2 - 3	50 - 75	15	381	48	22	68	31	–	–
					4 - 6 O.D.	100 - 150 O.D.	15	381	48	22	68	31	–	–
					6⅝ O.D - 7⅝ O.D.	168 O.D. - 194 O.D.	15	381	48	22	68	31	–	–
					8⅝ O.D. & 9⅝ O.D.	219 O.D. - 245 O.D.	15	381	48	22	68	31	–	–

- ❑ All swage nipples on this page are made from J-55, K-55, N-80 or the most appropriate material available
- ❑ Casing threads (8 Rd.) on one end with any thread or finish (beveled) on the other end
- ❑ Also includes casing sizes where no thread is specified

Oil Country Fittings
Bull Plugs

Tubing Bull Plugs	Size				Length		Standard Weight		XS/XH Weight		XXS/XXH & Sch. 160 Weight	
	Pipe		API or O.D.									
	NPS	*DN*	*in*	*mm*	*in*	*mm*	*lbs*	*kg*	*lbs*	*kg*	*lbs*	*kg*
	¾ EUE	20			3	76	1.5	0.68	0.50	0.23	—	—
	1	25	1.315	33	3	76	1.5	0.68	0.66	0.30	—	—
	1 EUE	25			3	76	1.5	0.68	—	—	—	—
	1¼	32	1.660	42	3¼	83	1.5	0.68	1.00	0.45	—	—
	1¼ EUE	32			3¼	83	1.5	0.68	—	—	—	—
	1½	40	1.900	48	3½	89	1.5	0.68	1.1	0.48	—	—
	1½ EUE	40			3½	89	2.0	0.91	2.3	1.0	—	—
	2	50	2⅜	60	4	102	2.0	0.91	3.0	1.4	4.3	1.9
	2 EUE	50			5	127	3.5	1.6	4.0	1.8	9.0	4.1
	2½	65	2⅞	73	5	127	3.0	1.4	3.5	1.6	8.0	3.6
	2½ EUE	65			5½	140	4.3	1.9	6.0	2.7	14	6.4
	3	80	3½	89	6	152	4.5	2.0	5.0	2.3	11	5.0
	3 EUE	80			6½	165	10.0	4.5	15	6.8	25	11

Casing Bull Plugs	API or O.D.		Length		Standard Weight		XS/XH Weight		XXS/XXH & Sch. 160 Weight	
	in	*mm*	*in*	*mm*	*lbs*	*kg*	*lbs*	*kg*	*lbs*	*kg*
	4½	114	7	178	7.5	3.4	10.0	4.5	18	8.2
	5	127	8	203	9.5	4.3	15	6.8	24	11
	5½	140	8½	216	13	5.7	17	7.7	33	15
	6⅝	168	10	254	17	7.7	25	11	46	21
	7	178	10	254	17	7.7	25	11	50	23
	7⅝	194	11	279	24	11	32	15	53	24
	8⅝	219	11	279	29	13	44	20	78	35
	9⅝	244	12	305	36	16	47	21	76	34
	10¾	273	13	330	41	18	56	25	85	39

Std. bull plugs listed above are made from J-55 (or better).
Such items in XS and XXS are made from J-55, K-55, N-80 or the most appropriate material available.

CASING BULL PLUGS

- ❑ 4½" O.D. - 10¾" O.D. *(114 O.D. - 273 O.D. DN)* casing bull plugs available with all current API threads or beveled for welding
- ❑ Casing bull plugs available in standard, extra heavy or double extra heavy, and are manufactured from J-55, K-55, N-80 or L-80

ADAPTER NIPPLES

- J.B. Smith manufactures a full line of adapter nipples in sizes 1" NPS *(25 DN)* through 12" NPS *(300 DN)* from seamless A106 pipe.
- Adapter Nipples available in threaded, beveled, grooved and virtually all combinations of these end connections.
- Nipples manufactured in schedule 40, schedule 80, schedule 160 and double extra heavy wall thickness
- Full Traceability and mill certification available upon request at time of order

Bell Nipple			
O.D. Size		Weight	
NPS	DN	lbs	kg
4½	114	4.5	2.0
5½	140	9.0	4.1
7	175	13	6.0
8⅝	219	15	6.8

Adapter Nipples Seamless Schedule 40			
Size		Weight	
NPS	DN	lbs/ft	kg
¾	20	—	—
1	25	—	—
1¼	32	—	—
1½	40	—	—
2	50	3.6	1.7
2½	65	5.8	2.6
3	80	7.6	3.4
4	100	11	4.9
5	125	15	6.6
6	150	19	8.6
8	200	29	13
10	250	40	18
12	300	50	22

TUBING NIPPLES

- Nominal Pipe Size 1" - 4" *(25 - 100 DN)* upset and non-upset ends
- Lengths are 4" - 18" *(102mm - 457mm)*
- Tubing nipples available with any combination of current API threads (8 round, 10 round, 11½v, etc.) and are stock items in J-55, K-55, N-80 and L-80
- Wall thicknesses available: standard through double extra heavy
- For a different grade of material (stainless, brass, etc.) and different threads, consult factory

Tubing Nipples standard Weight	Size		End Connection
	NPS	DN	
18" and shorter upset and non-upset	1	25	Upset A.P.I. Thds, One or Both Ends
			Non-upset (Regular)
	1¼	32	Upset A.P.I. Thds, One or Both Ends
			Non-upset (Regular)
	1½	40	Upset A.P.I. Thds, One or Both Ends
			Non-upset (Regular)
	2	50	Upset A.P.I. Thds, One or Both Ends
			Non-upset (Regular)
	2½	65	Upset A.P.I. Thds, One or Both Ends
			Non-upset (Regular)
	3	80	Upset A.P.I. Thds, One or Both Ends
			Non-upset (Regular)
	4	100	Upset A.P.I. Thds, One or Both Ends
			Non-upset (Regular)

Tubing Nipples Extra Heavy Weight	Size		End Connection
	NPS	DN	
18" and shorter upset and non-upset	1	25	Upset A.P.I. Thds, One or Both Ends
			Non-upset (Regular)
	1¼	32	Upset A.P.I. Thds, One or Both Ends
			Non-upset (Regular)
	1½	40	Upset A.P.I. Thds, One or Both Ends
			Non-upset (Regular)
	2	50	Upset A.P.I. Thds, One or Both Ends
			Non-upset (Regular)
	2½	65	Upset A.P.I. Thds, One or Both Ends
			Non-upset (Regular)
	3	80	Upset A.P.I. Thds, One or Both Ends
			Non-upset (Regular)
	4	100	Upset A.P.I. Thds, One or Both Ends
			Non-upset (Regular)

Oil Country Casing Nipples	Size O.D.		Weight		Steel Grade
	NPS	DN	lbs	kg	
	4½	114	11	4.8	K
			12	5.3	K-N-P
	5	125	12	5.2	K
			13	5.9	K
			15	6.8	K-N-P
			18	8.2	N-P
	5½	140	14	6.4	K
			16	7.0	K
			17	7.7	K-N-P
			20	9.1	N-P
	6⅝	168	20	9.1	K
			24	11	K-N-P
			28	13	N-P
	7	175	20	9.1	K
			23	10	K-N
			26	12	K-N-P
			29	13	N-P
	7⅝	194	26	12	K-N
			30	13	N-P
	8⅝	219	24	11	K
			32	15	K
			36	16	K-N
			44	20	N-P
			49	22	N-P
	9⅝	245	36	16	K
			40	18	K-N
			44	20	N-P
			47	21	N-P
	10¾	273	41	18	K
			46	21	K
			56	25	N-P
	11¾	298	60	27	K
	13⅜	340	55	25	K
			61	28	K
			68	31	K
			72	33	K
	16	400	75	34	K
			84	38	K

API Casing Couplings Short Thread	Casing O.D.		Weight/100		Length of Round Thread Coupling	
	NPS	*Dn*	*lbs*	*kg*	*in*	*mm*
	4½	114	805	365	6¼	159
	5	125	1018	462	6½	165
	5½	140	1144	519	6¾	171
	6⅝	168	1997	906	7¼	184
	7	175	1834	832	7¼	184
	7⅝	194	2693	1222	7½	191
	8⅝	219	3558	1614	7¾	197
	9⅝	144	3951	1792	7¾	197
	10¾	273	4553	2065	8	203
	11¾	298	–	–	8	203
	13⅜	340	5623	2551	8	203
	16	400	7898	3582	9	229
	20	500	9500	4309	9	229

API Casing Couplings Long Thread	Casing O.D.		Weight /100		Length of Coupling	
	NPS	*DN*	*lbs*	*kg*	*in*	*mm*
	4½	114	907	411	7	178
	5	125	1256	570	7¾	197
	5½	140	1403	636	8	203
	6⅝	168	1829	830	8¾	222
	7	175	2367	1074	9	229
	7⅝	194	3423	1553	9¼	235
	8⅝	219	4748	2154	10	254
	9⅝	244	5577	2530	10½	267
	10¾	273	6202	2813	10½	267
	13⅜	340	7663	3476	10½	267

Forged Steel Fittings

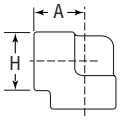
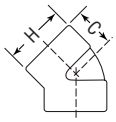
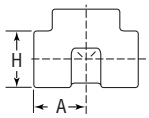
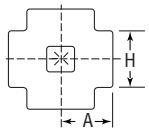
Materials
The steel for Anvil Forged Carbon Steel Fittings consists of forging, bars, seamless pipe or tubes which conform to the requirements for melting process, chemical composition and mechanical properties of ASTM A105.

Design Basis
ASME B16.11 - Forged fittings, socket-weld and threaded

Dimensions
ASME B16.11, unless otherwise noted

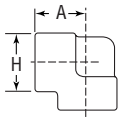
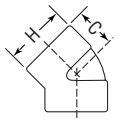
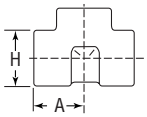
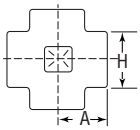
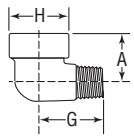
Threads
ASME 1.20.1

Forged Steel Fittings
Class 2000 Threaded

			NPS -->	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
			DN -->	6	8	10	15	20	25	32	40	50	65	80	100
90° Elbows: Figure 2101 	**A**	*(in)*		0.97*	0.97*	0.97	1.12	1.31	1.50	1.75	2.00	2.38	3.00	3.38	4.19
		(mm)		25	25	25	28	33	38	44	51	60	76	86	106
	H	*(in)*		1.00*	1.00*	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.62	4.31	5.75
		(mm)		25	25	25	33	38	46	56	62	75	92	109	146
		Wt./100 (lbs)		31	31	31	50	69	113	158	200	350	650	1100	2275
		(kg)		14	14	14	23	31	51	72	91	159	295	499	1032
45° Elbows: Figure 2102 	**C**	*(in)*		0.75*	0.75*	0.75	0.88	1.00	1.12	1.31	1.38	1.69	2.06	2.50	3.12
		(mm)		19	19	19	22	25	28	33	35	43	52	64	79
	H	*(in)*		1.00*	1.00*	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.62	4.31	5.75
		(mm)		25	25	25	33	38	46	56	62	75	92	109	146
		Wt./100 (lbs)		25	25	25	44	63	94	138	163	269	775	1131	1913
		(kg)		11	11	11	20	29	43	63	74	122	352	513	868
Tees: Figure 2103 	**A**	*(in)*		0.97*	0.97*	0.97	1.12	1.31	1.50	1.75	2.00	2.38	3.00	3.38	4.19
		(mm)		25	25	25	28	33	38	44	51	60	76	86	106
	H	*(in)*		1.00*	1.00*	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.62	4.31	5.75
		(mm)		25	25	25	33	38	46	56	62	75	92	109	146
		Wt./100 (lbs)		31	31	31	69	94	144	200	275	463	869	1319	2725
		(kg)		14	14	14	31	43	65	91	125	210	394	598	1236
Crosses: Figure 2104 	**A**	*(in)*		0.97*	0.97*	0.97	1.12	1.31	1.50	1.75	2.00	2.38	3.00	3.38	4.19
		(mm)		25	25	25	28	33	38	44	51	60	76	86	106
	H	*(in)*		1.00*	1.00*	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.62	4.31	5.75
		(mm)		25	25	25	33	38	46	56	62	75	92	109	146
		Wt./100 (lbs)		50	50	50	88	113	169	250	319	525	1644	1950	3269
		(kg)		23	23	23	40	51	77	113	145	238	746	885	1483

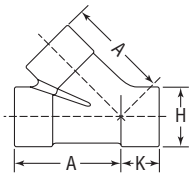
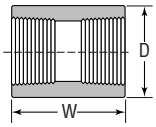
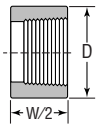
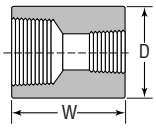
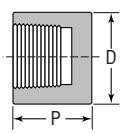
*Larger than ASME B16.11 dimension.

Forged Steel Fittings
Class 3000 Threaded

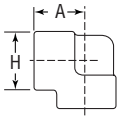
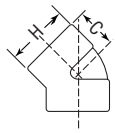
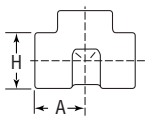
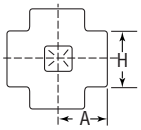
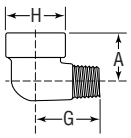
	NPS -->		1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
	DN -->		6	8	10	15	20	25	32	40	50	65	80	100
90° Elbows: Figure 2111 	A	(in)	0.97*	0.97	1.12	1.31	1.50	1.75	2.00	2.38	2.50	3.25	3.75	4.50
		(mm)	25	25	28	33	38	44	51	60	64	83	95	114
	H	(in)	1.00*	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.31	4.00	4.75	6.00
		(mm)	25	25	33	38	46	56	62	75	84	102	121	152
	Wt./100 (lbs)		38	38	63	88	138	225	260	490	519	1050	1444	3038
	(kg)		17	17	29	40	63	102	118	222	235	476	655	1378
45° Elbows: Figure 2112 	C	(in)	0.75*	0.75	0.88	1.00	1.12	1.31	1.38	1.69	1.72	2.06	2.50	3.12
		(mm)	19	19	22	25	28	33	35	43	44	52	64	79
	H	H (in)	1.00*	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.31	4.00	4.75	6.00
		(mm)	25	25	33	38	46	56	62	75	84	102	121	152
	Wt./100 (lbs)		25	25	52	68	119	188	213	400	440	738	1178	1906
	(kg)		11	11	24	31	54	85	97	181	200	335	534	865
Tees: Figure 2114 	A	(in)	0.97*	0.97	1.12	1.31	1.50	1.75	2.00	2.38	2.50	3.25	3.75	4.50
		(mm)	25	25	28	33	38	44	51	60	64	83	95	114
	H	(in)	1.00*	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.31	4.00	4.75	6.00
		(mm)	25	25	33	38	46	56	62	75	84	102	121	152
	Wt./100 (lbs)		38	38	81	119	188	310	350	640	686	1313	2038	3950
	(kg)		17	17	37	54	85	141	159	290	311	596	924	1792
Crosses: Figure 2115 	A	(in)	0.97*	0.97	1.12	1.31	1.50	1.75	2.00	2.38	2.50	3.25	3.75	4.50
		(mm)	25	25	28	33	38	44	51	60	64	83	95	114
	H	(in)	1.00*	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.31	4.00	4.75	6.00
		(mm)	25	25	33	38	46	56	62	75	84	102	121	152
	Wt./100 (lbs)		38	38	100	150	250	356	413	650	813	1675	1975	3200
	(kg)		17	17	45	68	113	161	187	295	369	760	896	1451
Street Elbows: Figure 2113 	A	(in)	0.97	0.97	1.12	1.31	1.50	1.75	2.00	2.38	2.50	3.25	3.75	4.50
		(mm)	25	25	28	33	38	44	51	60	64	83	95	114
	G	(in)	1.25	1.25	1.50	1.69	1.94	2.31	2.69	2.81	3.38	–	–	–
		(mm)	32	32	38	43	49	59	68	71	86	–	–	–
	H	(in)	1.00	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.31	4.00	4.75	6.00
		(mm)	25	25	33	38	46	56	62	75	84	102	121	152
	Wt./100 (lbs)		25	25	38	55	88	144	250	425	519	–	–	–
	(kg)		11	11	17	25	40	65	113	193	235	–	–	–

*Larger than ASME B16.11 dimension.

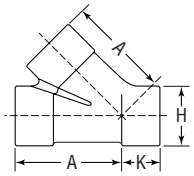
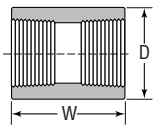
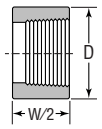
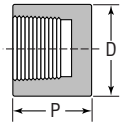
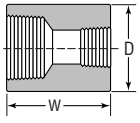
Forged Steel Fittings
Class 3000 Threaded

			NPS -->	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
			DN -->	6	8	10	15	20	25	32	40	50	65	75	100
Laterals: Figure 2116 	**A**	*(in)*	–	1.88	2.12	2.56	3.00	3.50	3.94	4.75	–	–	–	–
		(mm)	–	48	54	65	76	89	100	121	–	–	–	–
	H	*(in)*	–	1.06	1.31	1.50	1.81	2.19	2.44	2.97	–	–	–	–
		(mm)	–	27	33	38	46	56	62	75	–	–	–	–
	K	*(in)*	–	0.81	0.88	1.00	1.12	1.31	1.44	1.68	–	–	–	–
		(mm)	–	21	22	25	28	33	37	43	–	–	–	–
		Wt./100 (lbs)	–	–	–	175	275	463	550	1081	–	–	–	–
		(kg)	–	–	–	79	125	210	249	490	–	–	–	–
Couplings: Figure 2117 	**D**	*(in)*	0.75*	0.75	0.88	1.12	1.38	1.75	2.25	2.50	3.00	3.62	4.25	5.50
		(mm)	19	19	22	28	35	44	57	64	76	92	108	140
	W	*(in)*	1.25	1.38	1.50	1.88	2.00	2.38	2.62	3.12	3.38	3.62	4.25	4.75
		(kg)	0.57	0.63	0.68	0.85	0.91	1.1	1.2	1.4	1.5	1.6	1.9	2.2
		Wt./100 (lbs)	12	10.0	13	29	42	84	156	211	300	460	650	1225
		(kg)	5.4	4.5	5.9	13	19	38	71	96	136	209	295	556
Half Couplings: Figure 2119 	**D**	*(in)*	0.75*	0.75	0.88	1.12	1.38	1.75	2.25	2.50	3.00	3.62	4.25	5.50
		(mm)	19	19	22	28	35	44	57	64	76	92	108	140
	W/2	*(in)*	0.62	0.69	0.75	0.94	1.00	1.19	1.31	1.56	1.69	1.81	2.13	2.38
		(mm)	16	18	19	24	25	30	33	40	43	46	54	60
		Wt./100 (lbs)	5.0	4.0	6.0	13	18	38	72	99	139	215	306	580
		(kg)	2.3	1.8	2.7	5.9	8.2	17	33	45	63	98	139	263
Reducing Couplings: Figure 2118 	**D**	*(in)*	0.75*	0.75	0.88	1.12	1.38	1.75	2.25	2.50	3.00	3.62	4.25	5.50
		(mm)	19	19	22	28	35	44	57	64	76	92	108	140
	W	*(in)*	–	1.38	1.50	1.88	2.00	2.38	2.62	3.12	3.38	3.62	4.25	4.75
		(mm)	–	35	38	48	51	60	67	79	86	92	108	121
		NPS	–	1/8	1/8	1/8	1/8	1/8	1/4	1/4	1/4	3/4	3/4	1 1/2
		(DN)	–	6	6	6	6	6	8	8	8	20	20	40
		Wt./100 (lbs)	–	10.0	13	29	42	84	156	211	300	460	650	1225
		(kg)	–	4.5	5.9	13	19	38	71	96	136	209	295	556
Pipe Caps: Figure 2120 	**D**	*(in)*	0.75*	0.75	0.88	1.12	1.38	1.75	2.25	2.50	3.00	3.62	4.25	5.50
		(mm)	19	19	22	28	35	44	57	64	76	92	108	140
	P	*(in)*	0.75	1.00	1.00	1.25	1.44	1.62	1.75	1.75	1.88	2.38	2.56	2.69
		(mm)	19	25	25	32	37	41	44	44	48	60	65	68
		Wt./100 (lbs)	6.0	9.0	13	25	41	75	125	150	260	500	850	1300
		(kg)	2.7	4.1	5.9	11	19	34	57	68	118	227	386	590

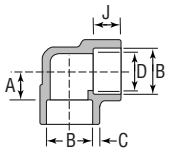
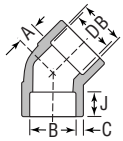
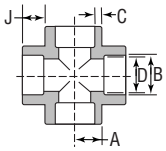
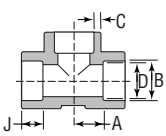
*Larger than ASME B16.11 dimension.

	NPS -->		1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
	DN -->		6	8	10	15	20	25	32	40	50	65	75	100
90° Elbows: Figure 2131 	A	(in)	0.97	1.12	1.31	1.50	1.75	2.00	2.38	2.50	3.25	3.75	4.19	4.50
		(mm)	25	28	33	38	44	51	60	64	83	95	106	114
	H	(in)	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.31	4.00	4.75	5.75	6.00
		(mm)	25	33	38	46	56	62	75	84	102	121	146	152
	Wt./100 (lbs)		25	63	106	163	250	325	650	725	1325	2088	3456	–
	(kg)		11	29	48	74	113	147	295	329	601	947	1568	–
45° Elbows: Figure 2132 	C	(in)	0.75	0.88	1.00	1.12	1.31	1.38	1.69	1.72	2.06	2.50	3.12	3.12
		(mm)	19	22	25	28	33	35	43	44	52	64	79	79
	H	(in)	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.31	4.00	4.75	5.75	6.00
		(mm)	25	33	38	46	56	62	75	84	102	121	146	152
	Wt./100 (lbs)		25	59	88	144	219	269	469	575	950	1500	3056	–
	(kg)		11	27	40	65	99	122	213	261	431	680	1386	–
Tees: Figure 2134 	A	(in)	0.97	1.12	1.31	1.50	1.75	2.00	2.38	2.50	3.25	3.75	4.19	4.50
		(mm)	25	28	33	38	44	51	60	64	83	95	106	114
	H	(in)	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.31	4.00	4.75	5.75	6.00
		(mm)	25	33	38	46	56	62	75	84	102	121	146	152
	Wt./100 (lbs)		50	100	138	213	363	463	763	963	1888	2806	4563	–
	(kg)		23	45	63	97	165	210	346	437	856	1273	2070	–
Crosses: Figure 2135 	A	(in)	0.97	1.12	1.31	1.50	1.75	2.00	2.38	2.50	3.25	3.75	4.19	–
		(mm)	25	28	33	38	44	51	60	64	83	95	106	–
	H	(in)	1.00	1.31	1.50	1.81	2.19	2.44	2.97	3.31	4.00	4.75	5.75	–
		(mm)	25	33	38	46	56	62	75	84	102	121	146	–
	Wt./100 (lbs)		56	119	150	275	431	563	1075	1150	2219	2750	5400	–
	(kg)		25	54	68	125	195	255	488	522	1007	1247	2449	–
Street Elbows: Figure 2133 	A	(in)	–	1.00	1.12	1.38	1.75	2.00	2.12	2.50	–	–	–	–
		(mm)	–	25	28	35	44	51	54	64	–	–	–	–
	G	(in)	–	1.50	1.63	1.88	2.25	2.62	2.81	3.31	–	–	–	–
		(mm)	–	38	41	48	57	67	71	84	–	–	–	–
	H	(in)	–	1.25	1.50	1.75	2.00	2.44	2.75	3.31	–	–	–	–
		(mm)	–	32	38	44	51	62	70	84	–	–	–	–
	Wt./100 (lbs)		–	37	45	100	162	250	368	644	–	–	–	–
	(kg)		–	17	20	45	73	113	167	292	–	–	–	–

Forged Steel Fittings
Class 6000 Threaded

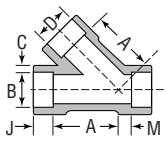
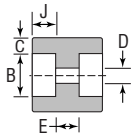
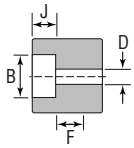
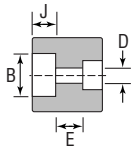
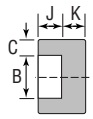
	NPS -->		⅛	¼	⅜	½	¾	1	1¼	1½	2	2½	3	4
	DN -->		6	8	10	15	20	25	32	40	50	65	75	100
Laterals: Figure 2136 	A	(in)	–	–	2.56	3.00	3.56	4.00	4.75	–	–	–	–	–
		(mm)	–	–	65	76	90	102	121	–	–	–	–	–
	H	(in)	–	–	1.50	1.81	2.19	2.44	2.88	–	–	–	–	–
		(mm)	–	–	38	46	56	62	73	–	–	–	–	–
	K	(in)	–	–	1.00	1.25	1.38	1.50	1.75	–	–	–	–	–
		(mm)	–	–	25	32	35	38	44	–	–	–	–	–
	Wt./100 (lbs)		–	–	237	325	548	732	1232	–	–	–	–	–
	(kg)		–	–	108	147	249	332	559	–	–	–	–	–
Couplings: Figure 2137 	D	(in)	0.88	1.00	1.25	1.50	1.75	2.25	2.50	3.00	3.62	4.25	5.00	6.25
		(mm)	22	25	32	38	44	57	64	76	92	108	127	159
	W	(in)	1.25	1.38	1.50	1.88	2.00	2.38	2.62	3.12	3.38	3.62	4.25	4.75
		(mm)	32	35	38	48	51	60	67	79	86	92	108	121
	Wt./100 (lbs)		18	23	40	69	95	192	230	375	537	890	1345	2425
	(kg)		8.2	10	18	31	43	87	104	170	244	404	610	1100
Half Couplings: Figure 2141 	D	(in)	0.88	1.00	1.25	1.50	1.75	2.25	2.50	3.00	3.62	4.25	5.00	6.25
		(mm)	22	25	32	38	44	57	64	76	92	108	127	159
	W/2	(in)	0.62	0.69	0.75	0.94	1.00	1.19	1.31	1.56	1.69	1.81	2.13	2.38
		(mm)	16	18	19	24	25	30	33	40	43	46	54	60
	Wt./100 (lbs)		8.0	10.0	18	33	45	86	110	180	260	430	650	1180
	(kg)		3.6	4.5	8.2	15	20	39	50	82	118	195	295	535
Pipe Caps: Figure 2143 	D	(in)	0.88	1.00	1.25	1.50	1.75	2.25	2.50	3.00	3.62	4.25	5.00	6.25
		(mm)	22	25	32	38	44	57	64	76	92	108	127	159
	P	(in)	–	1.06	1.06	1.31	1.50	1.69	1.81	1.88	2.00	2.50	2.69	2.94
		(mm)	–	27	27	33	38	43	46	48	51	64	68	75
	Wt./100 (lbs)		15	18	25	56	75	140	220	290	520	660	960	1700
	(kg)		6.8	8.2	11	25	34	64	100	132	236	299	435	771
Reducing Couplings Figure 2138 	D	(in)	–	1.00	1.25	1.50	1.75	2.25	2.50	3.00	3.62	4.25	5.00	6.25
		(mm)	–	25	32	38	44	57	64	76	92	108	127	6.25
	W	(in)	–	1.38	1.50	1.88	2.00	2.38	2.62	3.12	3.38	3.62	4.25	4.75
		(mm)	–	35	38	48	51	60	67	79	86	92	108	121
	Lowest Reduction (NPS)		–	⅛	⅛	⅛	¼	¼	½	¾	¾	1¼	1½	2
	(DN)		–	6	6	6	8	8	15	20	20	32	40	50
	Wt./100 (lbs)		–	23	40	69	95	192	230	375	537	890	1345	2425
	(kg)		–	10	18	31	43	87	104	170	244	404	610	1100

Forged Steel Fittings
Class 3000 Socket-Weld

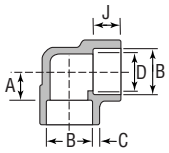
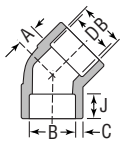
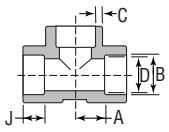
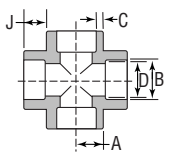
			NPS -->	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
			DN -->	6	8	10	15	20	25	32	40	50	65	75	100
COMMON DIMENSIONS	B	*Socket Dia. (in)*		.420/ .440	.555/ .575	.690/ .710	.855/ .875	1.065 1.085	1.330 1.350	1.675 1.695	1.915 1.935	2.406 2.426	2.906 2.931	3.535 3.560	4.545 4.570
		(mm)		11 11	14 15	18 18	22 22	27 28	34 34	43 43	49 49	61 62	74 74	90 90	115 116
	C	*Minimum (in)*		0.13	0.13	0.14	0.16	0.17	0.20	0.21	0.22	0.24	0.30	0.33	0.37
		(mm)		3	3	4	4	4	5	5	6	6	8	8	9
	D	*Bore Dia. (in)*		.239/ .299	.334/ .394	.463/ .523	.592/ .562	.794 .854	1.019 1.079	1.350 1.410	1.580 1.640	2.037 2.097	2.409 2.529	3.008 3.128	3.966 4.086
		(mm)		6 8	8 10	12 13	15 14	20 22	26 27	34 36	40 42	52 53	61 64	76 79	101 104
	J	*Socket Depth Min.(in)*		0.38	0.38	0.38	0.38	0.50	0.50	0.50	0.50	0.62	0.62	0.62	0.75
		(mm)		10	10	10	10	13	13	13	13	16	16	16	19
90° Elbows: Figure 2150 	A	*(Nominal) (in)*		0.44	0.44	0.53	0.62	0.75	0.88	1.06	1.25	1.50	1.62	2.25	2.62
		(mm)		11	11	13	16	19	22	27	32	38	41	57	67
	Wt./100 (lbs)			13	13	25	50	69	106	163	213	290	638	1088	2369
	(kg)			5.9	5.9	11	23	31	48	74	97	132	289	494	1075
45° Elbows: Figure 2151 	A	*(Nominal) (in)*		0.31	0.31	0.31	0.44	0.50	0.56	0.69	0.81	1.00	1.12	1.25	1.62
		(mm)		8	8	8	11	13	14	18	21	25	28	32	41
	Wt./100 (lbs)			13	13	19	38	50	88	125	163	269	675	1050	1819
	(kg)			5.9	5.9	8.6	17	23	40	57	74	122	306	476	825
Crosses: Figure 2153 	A	*(in)*		0.44	0.44	0.53	0.62	0.75	0.88	1.06	1.25	1.50	1.62	2.25	2.62
		(mm)		11	11	13	16	19	22	27	32	38	41	57	67
	Wt./100 (lbs)			25	25	34	69	88	144	213	263	444	888	1369	2844
	(kg)			11	11	15	31	40	65	97	119	201	403	621	1290
Tee: Figure 2152 	A	*(in)*		0.44	0.44	0.53	0.62	0.75	0.88	1.06	1.25	1.50	1.62	2.25	2.62
		(mm)		11	11	13	16	19	22	27	32	38	41	57	67
	Wt./100 (lbs)			25	31	31	81	113	156	244	325	550	1581	2019	3150
	(kg)			11	14	14	37	51	71	111	147	249	717	916	1429

Note: When the pipe is seated against the bottom of the socket prior to welding, to prevent possible cracking of the fillet welds, it is recommended that the pipe be withdrawn approximately 1/16 in *(1.6mm)*. away from contact with the bottom of the socket before starting the weld.

Forged Steel Fittings
Class 3000 Socket-Weld

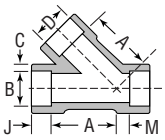
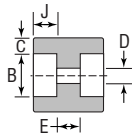
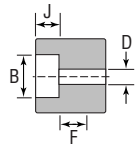
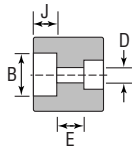
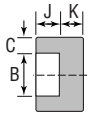
		NPS -->	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
		DN -->	6	8	10	15	20	25	32	40	50	65	75	100
COMMON DIMENSIONS	B	Socket Dia. (in)	.420 .440	.555 .575	.690 .710	.855 .875	1.065 1.085	1.330 1.350	1.675 1.695	1.915 1.935	2.406 2.426	2.906 2.931	3.535 3.560	4.545 4.570
		(mm)	11 11	14 15	18 18	22 22	27 28	34 34	43 43	49 49	61 62	74 74	90 90	115 116
	C	Minimum (in)	0.13	0.13	0.14	0.16	0.17	0.20	0.21	0.22	0.24	0.30	0.33	0.37
		(mm)	3	3	4	4	4	5	5	6	6	8	8	9
	D	Bore Dia. (in)	.239/ .299	.334/ .394	.463 .523	.592 .652	.794 .854	1.019 1.079	1.350 1.410	1.580 1.640	2.037 2.097	2.409 2.529	3.008 3.128	3.966 4.086
		(mm)	6 8	8 10	12 13	15 17	20 22	26 27	34 36	40 42	52 53	61 64	76 79	101 104
	J	Socket Depth Minimum (in)	0.38	0.38	0.38	0.38	0.50	0.50	0.50	0.50	0.62	0.62	0.62	0.75
		(mm)	10	10	10	10	13	13	13	13	16	16	16	19
Laterals: Figure 2158 	A	Nominal (in)	–	–	–	1.63	2.00	2.38	2.81	3.19	3.88	–	–	–
		(mm)	–	–	–	41	51	60	71	81	99	–	–	–
	M	(in)	–	–	–	.38	.44	.50	.63	.69	.81	–	–	–
		(mm)	–	–	–	10	11	13	16	18	21	–	–	–
	Wt./100 (lbs)		–	–	–	100	175	238	375	500	775	–	–	–
	(kg)		–	–	–	45	79	108	170	227	352	–	–	–
Couplings: Figure 2154 	E	(in)	0.25	0.25	0.25	0.38	0.38	0.50	0.50	0.50	0.75	0.75	0.75	0.75
		(mm)	6	6	6	10	10	13	13	13	19	19	19	19
	Wt./100 (lbs)		10.0	12	20	23	39	68	84	93	161	237	313	507
	(kg)		4.5	5.4	9.1	10	18	31	38	42	73	108	142	230
Half Couplings: Figure 2155 	F	(in)	0.62	0.62	0.69	0.88	0.94	1.12	1.19	1.25	1.62	1.69	1.75	1.88
		(mm)	16	16	18	22	24	28	30	32	41	43	44	48
	Wt./100 (lbs)		11	14	24	31	47	84	112	132	218	341	486	749
	(kg)		5.0	6.4	11	14	21	38	51	60	99	155	220	340
Reducing Couplings: Figure 2156 	E	(in)	–	0.25	0.25	0.38	0.38	0.50	0.50	0.50	0.75	0.75	0.75	0.75
		(mm)	–	6	6	10	10	13	13	13	19	19	19	19
	Lowest Reduction (NPS)		–	1/8	1/8	1/8	1/8	1/8	1/4	1/4	1/2	1/2	1 1/2	2
	(DN)		–	6	6	6	6	6	8	8	15	15	40	50
	Wt./100 (lbs)		–	12	20	23	39	68	84	93	161	237	313	507
	(kg)		–	5.4	9.1	10	18	31	38	42	73	108	142	230
Pipe Caps: Figure 2157 	K	Min. (in)	0.19	0.19	0.19	0.25	0.25	0.38	0.38	0.44	0.50	0.62	0.75	0.88
		(mm)	5	5	5	6	6	10	10	11	13	16	19	22
	Wt./100 (lbs)		6.0	9.0	17	22	35	60	93	115	192	280	475	844
	(kg)		2.7	4.1	7.7	10	16	27	42	52	87	127	215	383

Forged Steel Fittings
Class 6000 Socket-Weld

			NPS -->	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
			DN -->	6	8	10	15	20	25	32	40	50	65	75	100
COMMON DIMENSIONS	B	*Socket Dia. (in)*		.420 .440	.555 .575	.690 .710	.855 .875	1.065 1.085	1.330 1.350	1.675 1.695	1.915 1.935	2.406 2.426	2.906 2.931	3.535 3.560	4.545 4.570
		(mm)		11 11	14 15	18 18	22 22	27 28	34 34	43 43	49 49	61 62	74 74	90 90	115 116
	C	*Minimum (in)*		0.14	0.16	0.17	0.20	0.24	0.27	0.27	0.31	0.37	0.41	0.48	0.58
		(mm)		4	4	4	5	6	7	7	8	9	10	12	15
	D	*Bore Dia. (in)*		.126 .189	.220 .280	.329 .389	.434 .494	.582 .642	.785 .845	1.130 1.190	1.308 1.368	1.657 1.717	2.065 2.185	2.564 2.684	3.378 3.498
		(mm)		3 5	6 7	8 10	11 13	15 16	20 22	29 30	33 35	42 44	52 55	65 68	86 89
	J	*Socket Depth Minimum (in)*		0.38	0.38	0.38	0.38	0.50	0.50	0.50	0.50	0.62	0.62	0.62	0.75
		(mm)		10	10	10	10	13	13	13	13	16	16	16	19
90° Elbows: Figure 2170 	A	*Nominal (in)*		0.44	0.53	0.62	0.75	0.88	1.06	1.25	1.50	1.62	2.25	2.50	2.62
		(mm)		11	13	16	19	22	27	32	38	41	57	64	67
		Wt./100 (lbs)		–	–	–	88	144	250	325	531	638	1200	1938	3638
		(kg)		–	–	–	40	65	113	147	241	289	544	879	1650
45° Elbows: Figure 2171 	A	*(in)*		0.31	0.31	0.44	0.50	0.56	0.69	0.81	1.00	1.12	1.25	1.38	1.58
		(mm)		8	8	11	13	14	18	21	25	28	32	35	40
		Wt./100 (lbs)		–	–	–	69	131	200	263	475	588	713	1231	2700
		(kg)		–	–	–	31	59	91	119	215	267	323	558	1225
Tee: Figure 2172 	A	*(in)*		–	–	–	0.75	0.88	1.06	1.25	1.50	1.62	2.25	2.50	2.62
		(mm)		–	–	–	19	22	27	32	38	41	57	64	67
		Wt./100 (lbs)		–	–	–	106	206	338	431	781	869	1663	2381	4532
		(kg)		–	–	–	48	93	153	195	354	394	754	1080	2056
Crosses: Figure 2173 	A	*(in)*		–	–	–	0.75	0.88	1.06	1.25	1.50	1.62	2.25	2.50	2.62
		(mm)		–	–	–	19	22	27	32	38	41	57	64	67
		Wt./100 (lbs)		–	–	–	125	250	400	513	900	950	1988	2950	4150
		(kg)		–	–	–	57	113	181	233	408	431	902	1338	1882

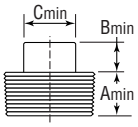
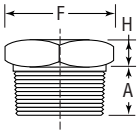
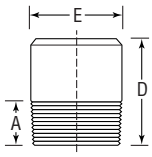
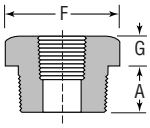
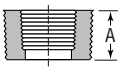
Note: When the pipe is seated against the bottom of the socket prior to welding, to prevent possible cracking of the fillet welds, it is recommended that the pipe be withdrawn approximately 1/16 in. *(1.6mm)* away from contact with the bottom of the socket before starting the weld.

Forged Steel Fittings
Class 6000 Socket-Weld

			NPS -->	½	¾	1	1¼	1½	2	2½	3	4
			DN -->	15	20	25	32	40	50	65	75	100
COMMON DIMENSIONS	B	Socket Dia.(in)		.855 .875	1.065 1.085	1.330 1.350	1.675 1.695	1.915 1.935	2.406 2.426	2.906 2.931	3.535 3.560	4.545 4.570
		(mm)		22 22	27 28	34 34	43 43	49 49	61 62	74 74	90 90	115 116
	C	Minimum (in)		.20	.24	.27	.27	.31	.37	.41	.48	.58
		(mm)		5	6	7	7	8	9	10	12	15
	D	Bore Dia. (in)		.434/ .494	.582/ .642	.785/ .845	1.130/ 1.190	1.308/ 1.368	1.657 1.717	2.065/ 2.185	2.564/ 2.684	3.378/ 3.498
		(mm)		11 13	15 16	20 21	29 30	33 35	42 44	52 55	65 68	86 89
	J	Socket Dept Minimum (in)		0.38	0.50	0.50	0.50	0.50	0.62	0.62	0.62	0.75
		(mm)		10	13	13	13	13	16	16	16	19
Laterals: Figure 2178 	A	(in)		2.00	2.38	2.81	3.19	3.88	–	–	–	-
		(mm)		51	60	71	81	99	–	–	–	-
	M	(in)		0.44	0.50	0.63	0.69	0.81	–	–	–	-
		(mm)		11	13	16	18	21	–	–	–	-
		Wt. /100 (lbs)		250	325	538	675	1281	–	–	–	–
		(kg)		113	147	244	306	581	–	–	–	–
Couplings: Figure 2174 	E	(in)		0.38	0.38	0.50	0.50	0.50	0.75	0.75	0.75	0.75
		(mm)		10	10	13	13	13	19	19	19	19
		Wt./100 (lbs)		46	74	136	144	222	415	533	675	1181
		(kg)		21	34	62	65	101	188	242	306	536
Half Couplings: Figure 2175 	F	(in)		0.88	0.94	1.12	1.19	1.25	1.62	1.69	1.75	1.88
		(mm)		22	24	28	30	32	41	43	44	48
		Wt./100 (lbs)		54	80	136	171	262	477	652	872	1429
		(kg)		24	36	62	78	119	216	296	396	648
Reducing Couplings: Figure 2176 	E	(in)		–	0.38	0.50	0.50	0.50	0.75	0.75	0.75	0.75
		(mm)		–	10	13	13	13	19	19	19	19
		Lowest Reduction (NPS)		–	⅜	⅜	½	½	¾	1¼	1½	2
		(DN)		–	10	10	15	15	20	32	40	50
		Wt./100 (lbs)			74	136	144	222	415	533	695	1181
		(kg)			34	62	65	101	188	242	315	536
Pipe Caps: Figure 2177 	K	Minimum (in)		0.31	0.31	0.44	0.44	0.50	0.62	0.75	0.88	1.12
		(mm)		8	8	11	11	13	16	19	22	28
		Wt./100 (lbs)		41	57	117	142	217	366	494	766	1453
		(kg)		19	26	53	64	98	166	224	347	659

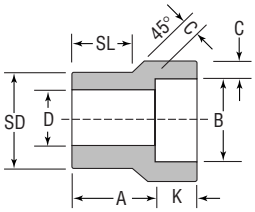
Forged Steel Fittings
High Pressure Plugs and Bushings

Anvil High Pressure Plugs and Bushings satisfy the requirement of ASME B16.11 Class 2000, 3000 and 6000

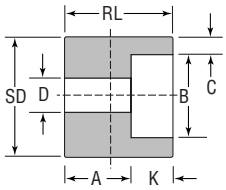
			NPS -->	1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4
			DN -->	6	8	10	15	20	25	32	40	50	65	75	100
Plugs - Square Head: Figure 2122 	A	*(in)*	0.38	0.44	0.50	0.56	0.62	0.75	0.81	0.81	0.88	1.06	1.12	1.25
		(mm)	10	11	13	14	16	19	21	21	22	27	28	32
	B	*(in)*	0.25	0.25	0.31	0.38	0.44	0.50	0.56	0.62	0.69	0.75	0.81	1.00
		(mm)	6	6	8	10	11	13	14	16	18	19	21	25
	C	*(in)*	0.28	0.38	0.44	0.56	0.62	0.81	0.94	1.12	1.31	1.50	1.69	2.50
		(mm)	7	10	11	14	16	21	24	28	33	38	43	64
		Wt./100 (lbs)	2.0	2.0	5.0	10.0	18	35	59	85	140	225	287	719
		(kg)	0.91	0.91	2.3	4.5	8.2	16	27	39	64	102	130	326
Plugs - Hex Head: Figure 2142 	F	*(Across Flats) (in)*	0.44	0.62	0.69	0.88	1.06	1.38	1.75	2.00	2.50	3.00	3.50	4.62
		(mm)	11	16	18	22	27	35	44	51	64	76	89	117
	A	*(in)*	0.38	0.44	0.50	0.56	0.62	0.75	0.81	0.81	0.88	1.06	1.12	1.25
		(mm)	10	11	13	14	16	19	21	21	22	27	28	32
	H	*(in)*	0.25	0.25	0.31	0.31	0.38	0.38	0.56	0.62	0.69	0.75	0.81	1.00
		(mm)	6	6	8	8	10	10	14	16	18	19	21	25
		Wt./100 (lbs)	3.0	6.0	10.0	17	32	48	95	136	225	388	588	1300
		(kg)	1.4	2.7	4.5	7.7	15	22	43	62	102	176	267	590
Plugs - Round Head: Figure 2121 	A	*(in)*	0.38	0.44	0.50	0.56	0.62	0.75	0.81	0.81	0.88	1.06	1.12	1.25
		(mm)	10	11	13	14	16	19	21	21	22	27	28	32
	D	*(in)*	1.38	1.62	1.62	1.75	1.75	2.00	2.00	2.00	2.50	2.75	2.75	3.00
		(mm)	35	41	41	44	44	51	51	51	64	70	70	76
	E	*(in)*	0.41	0.53	0.69	0.84	1.06	1.31	1.69	1.91	2.38	2.88	3.50	4.50
		(mm)	10	13	18	21	27	33	43	49	60	73	89	114
		Wt./100 (lbs)	13	13	18	25	38	75	113	156	300	475	763	1288
		(kg)	5.9	5.9	8.2	11	17	34	51	71	136	215	346	584
Bushings - Hex Head: Figure 2139 	A	*(in)*	–	0.44	0.50	0.56	0.62	0.75	0.81	0.81	0.88	1.06	1.12	1.25
		(mm)	–	11	13	14	16	19	21	21	22	27	28	32
	F	*(in)*	–	0.62	0.69	0.88	1.06	1.38	1.75	2.00	2.50	3.00	3.50	4.62
		(mm)	–	16	18	22	27	35	44	51	64	76	89	117
	G	*(in)*	–	0.12	0.16	0.19	0.22	0.25	0.28	0.31	0.34	0.38	0.41	0.50
		(mm)	–	3	4	5	6	6	7	8	9	10	10	13
		Lowest Reduction (NPS)	–	1/8	1/8	1/8	1/8	1/8	1/8	1/4	1/4	1/2	1/2	1 1/2
		(DN)	–	6	6	6	6	6	6	8	8	15	15	40
		Wt./100 (lbs)	–	2.0	5.0	6.0	13	19	39	68	163	238	350	831
		(kg)	–	0.91	2.3	2.7	5.9	8.6	18	31	74	108	159	377
Bushings - Flush: Figure 2140 	A	*(in)*	–	0.44	0.50	0.56	0.62	0.75	0.81	0.81	0.88	1.06	1.12	1.25
		(mm)	–	11	13	14	16	19	21	21	22	27	28	32
		Lowest Reduction (NPS)	–	1/8	1/8	1/8	1/8	1/8	1/8	1/4	1/4	3/4	1	1 1/2
		(DN)	–	6	6	6	6	6	6	8	8	20	25	40
		Wt./100 (lbs)	–	2.0	5.0	6.0	13	13	13	19	38	63	100	200
		(kg)	–	0.91	2.3	2.7	5.9	5.9	5.9	8.6	17	29	45	91

Note: Plugs and bushings are not identified by Pressure Class.
They may be used for ratings up to Pressure Class 6000 (per ASME B16.11)

Forged Steel Fittings
Socket-Weld Reducer Inserts



Type 1 - Reducer Insert
Fig. 2159

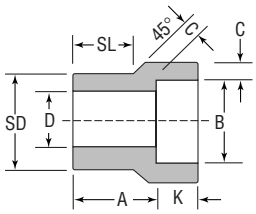


Type 2 - Reducer Insert
Fig. 2179

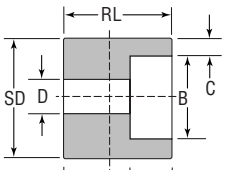
Reducer inserts comply with MSS standard SP-79.They enable standard socket-weld fittings to be used for making any combination of pipe line reductions quickly and economically. Socket-weld reducer inserts serve the same purpose as threaded reducing bushings with threaded fittings.

Size				Socket				Shank		
				Dia. B		Depth Min. K		Dia. SD		Type
NPS	DN	NPS	DN	in	mm	in	mm	in	mm	
⅜	10	x ¼	x 8	0.56	14	0.38	10	0.68	17	1
½	15	x ¼	x 8	0.56	14	0.38	10	0.84	21	1
		x ⅜	x 10	0.7	18	0.38	10	0.84	21	1
¾	20	x ¼	x 8	0.56	14	0.38	10	1.05	27	2
		x ⅜	x 10	0.7	18	0.38	10	1.05	27	2
		x ½	x 15	0.86	22	0.38	10	1.05	27	1
1	25	x ¼	x 8	0.56	14	–	–	1.31	33	2
		x ⅜	x 10	0.7	18	0.38	10	1.31	33	2
		x ½	x 15	0.86	22	0.38	10	1.31	33	2
		x ¾	x 20	1.07	27	0.5	13	1.31	33	1
1¼	32	x ¼	x 8	0.5	13	0.38	10	1.66	42	2
		x ⅜	x 10	0.7	18	0.38	10	1.66	42	2
		x ½	x 15	0.86	22	0.38	10	1.66	42	2
		x ¾	x 20	1.07	27	0.5	13	1.66	42	2
		x 1	x 25	1.33	34	–	–	1.66	42	1
1½	40	x ⅜	x 10	0.7	18	0.38	10	1.9	48	2
		x ½	x 15	0.86	22	0.38	10	1.9	48	2
		x ¾	x 20	1.07	27	0.5	13	1.9	48	2
		x 1	x 25	1.34	34	0.5	13	1.9	48	2
		x 1¼	x 32	1.68	43	0.5	13	1.9	48	1
2	50	x ½	x 15	0.86	22	0.38	10	2.38	60	2
		x ¾	x 20	1.07	27	0.5	13	2.38	60	2
		x 1	x 25	1.34	34	0.5	13	2.38	60	2
		x 1¼	x 32	1.68	43	0.5	13	2.38	60	2
		x 1½	x 40	1.92	49	0.5	13	2.38	60	1
2½	65	x ¾	x 20	1.07	27	0.5	13	2.88	73	2
		x 1	x 25	1.34	34	0.5	13	2.88	73	2
		x 1¼	x 32	1.68	43	0.5	13	2.88	73	2
		x 1½	x 40	1.92	49	0.5	13	2.88	73	2
		x 2	x 50	2.41	61	0.62	16	2.88	73	1
3	80	x 1	x 25	1.34	34	0.5	13	3.5	89	2
		x 1¼	x 32	1.68	43	0.5	13	3.5	89	2
		x 1½	x 40	1.92	49	0.5	13	3.5	89	2
		x 2	x 50	2.41	61	0.62	16	3.5	89	2
		x 2½	x 65	2.91	74	0.62	16	3.5	89	1

To minimize the possibility of cracking of the fillet welds, it is recommended that the shank portion of the reducer be withdrawn approximately .0625 in. *(1.6 mm)* away from the contact with the bottom of the socket before starting the weld. Likewise, the pipe is to be kept away from contacting the bottom of the reducer socket before welding.



Type 1 - Reducer Insert
Fig. 2159



Type 2 - Reducer Insert
Fig. 2179

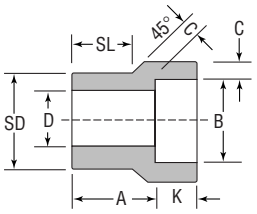
CLASS 3000 - For use with Schedule 40 and 80 Pipe

Reducer inserts comply with MSS standard SP-79.They enable standard socket-weld fittings to be used for making any combination of pipe line reductions quickly and economically. Socket-weld reducer inserts serve the same purpose as threaded reducing bushings with threaded fittings.

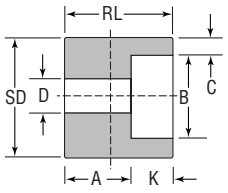
Size				CLASS 3000 - For use with Schedule 40 and 80 Pipe									
				A		D		C Min.		SL		RL Min.	
NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm
⅜	10	x ¼	x 8	0.75	19	0.36	9	0.149	4	0.56	14	–	–
½	15	x ¼	x 8	0.81	21	0.36	9	0.149	4	0.62	16	–	–
		x ⅜	x 10	0.81	21	0.49	12	0.158	4	0.62	16	–	–
¾	20	x ¼	x 8	0.69	18	0.36	9	0.149	4	–	–	1.06	27
		x ⅜	x 10	0.62	16	0.49	12	0.158	4	–	–	1.06	27
		x ½	x 15	0.88	22	0.62	16	0.184	5	0.69	18	–	–
1	25	x ¼	x 8	0.75	19	0.36	9	0.149	4	–	–	1.12	28
		x ⅜	x 10	0.69	18	0.49	12	0.158	4	–	–	1.12	28
		x ½	x 15	0.62	16	0.62	16	0.184	5	–	–	1.12	28
		x ¾	x 20	0.94	24	0.82	21	0.193	5	0.75	19	–	–
1¼	32	x ¼	x 8	0.88	22	0.36	9	0.149	4	–	–	1.25	32
		x ⅜	x 10	0.81	21	0.49	12	0.158	4	–	–	1.25	32
		x ½	x 15	0.75	19	0.62	16	0.184	5	–	–	1.25	32
		x ¾	x 20	0.69	18	0.82	21	0.193	5	–	–	1.25	32
		x 1	x 25	1	25	1.05	27	0.224	6	0.81	21	–	–
1½	40	x ⅜	x 10	0.88	22	0.49	12	0.158	4	–	–	1.31	33
		x ½	x 15	0.81	21	0.62	16	0.184	5	–	–	1.31	33
		x ¾	x 20	0.75	19	0.82	21	0.193	5	–	–	1.31	33
		x 1	x 25	0.69	18	1.05	27	0.224	6	–	–	1.31	33
		x 1¼	x 32	1.12	28	1.38	35	0.239	6	0.88	22	–	–
2	50	x ½	x 15	1	25	0.62	16	0.184	5	–	–	1.5	38
		x ¾	x 20	0.94	24	0.82	21	0.193	5	–	–	1.5	38
		x 1	x 25	0.88	22	1.05	27	0.224	6	–	–	1.5	38
		x 1¼	x 32	0.81	21	1.38	35	0.239	6	–	–	1.5	38
		x 1½	x 40	1.25	32	1.61	41	0.25	6	1	25	–	–
2½	65	x ¾	x 20	1.56	40	0.82	21	0.193	5	–	–	2.12	54
		x 1	x 25	1.5	38	1.05	27	0.226	6	–	–	2.12	54
		x 1¼	x 32	1.44	37	1.38	35	0.239	6	–	–	2.12	54
		x 1½	x 40	1.38	35	1.61	41	0.25	6	–	–	2.12	54
		x 2	x 50	1.81	46	2.07	53	0.273	7	1.5	38	–	–
3	80	x 1	x 25	1.25	32	1.05	27	0.224	6	–	–	1.87	47
		x 1¼	x 32	1.19	30	1.38	35	0.239	6	–	–	1.87	47
		x 1½	x 40	1.12	28	1.61	41	0.25	6	–	–	1.87	47
		x 2	x 50	1	25	2.07	53	0.273	7	–	–	1.87	47
		x 2½	x 65	1.5	38	2.47	63	0.345	9	1.25	32	–	–

To minimize the possibility of cracking of the fillet welds, it is recommended that the shank portion of the reducer be withdrawn approximately .0625 in. *(1.6 mm)* away from the contact with the bottom of the socket before starting the weld. Likewise, the pipe is to be kept away from contacting the bottom of the reducer socket before welding.

Forged Steel Fittings
Socket-Weld Reducer Inserts



Type 1 - Reducer Insert
Fig. 2159



Type 2 - Reducer Insert
Fig. 2179

CLASS 6000 - For use with Schedule 160 Pipe

Reducer inserts comply with MSS standard SP-79. They enable standard socket-weld fittings to be used for making any combination of pipe line reductions quickly and economically. Socket-weld reducer inserts serve the same purpose as threaded reducing bushings with threaded fittings.

Size				CLASS 6000 - For use with Schedule 160 Pipe											
				Type	A		D		C Min.		SL		RL. Min	
NPS	DN	NPS	DN		in	mm	in	mm	in	mm	in	mm	in	mm
⅜	10	x ¼	x 8	1	0.81	21	0.25	6	0.181	5	0.62	16	–	–
½	15	x ¼	x 8	1	0.81	21	0.25	6	0.181	5	0.62	16	–	–
		x ⅜	x 10	1	0.88	22	0.36	9	0.198	5	0.62	16	–	–
¾	20	x ¼	x 8	2	0.88	22	0.25	6	0.181	5	–	–	1.26	32
		x ⅜	x 10	1	0.88	22	0.36	9	0.198	5	0.75	19	–	–
		x ½	x 15	1	1	25	0.46	12	0.235	6	0.75	19	–	–
1	25	x ¼	x 8	2	0.94	24	0.25	6	0.181	5	–	–	1.31	33
		x ⅜	x 10	2	0.88	22	0.36	9	0.198	5	–	–	1.31	33
		x ½	x 15	1	1.12	28	0.46	12	0.235	6	0.81	21	–	–
		x ¾	x 20	1	1.12	28	0.61	15	0.274	7	0.81	21	–	–
1¼	32	x ¼	x 8	2	1	25	0.25	6	0.181	5	–	–	1.37	35
		x ⅜	x 10	2	0.94	24	0.36	9	0.198	5	–	–	1.37	35
		x ½	x 15	2	0.88	22	0.46	12	0.235	6	–	–	1.37	35
		x ¾	x 20	2	0.81	21	0.61	15	0.274	7	–	–	1.37	35
		x 1	x 25	1	1.19	30	0.81	21	0.312	8	0.88	22	–	–
1½	40	x ⅜	x 10	2	1.12	28	0.36	9	0.198	5	–	–	1.56	40
		x ½	x 15	2	1.06	27	0.46	12	0.235	6	–	–	1.56	40
		x ¾	x 20	2	1	25	0.61	15	0.274	7	–	–	1.56	40
		x 1	x 25	1	1.12	28	0.81	21	0.312	8	1	25	–	–
		x 1¼	x 32	1	1.38	35	1.16	29	0.312	8	1	25	–	–
2	50	x ½	x 15	2	1.12	28	0.46	12	0.235	6	–	–	1.62	41
		x ¾	x 20	2	1.06	27	0.61	15	0.274	7	–	–	1.62	41
		x 1	x 25	2	1	25	0.82	21	0.312	8	–	–	1.62	41
		x 1¼	x 32	2	0.94	24	1.16	29	0.312	8	–	–	1.62	41
		x 1½	x 40	1	1.81	46	1.34	34	0.351	9	1.13	29	–	–
2½	65	x ¾	x 20	–	–	–	–	–	–	–	–	–	–	–
		x 1	x 25	–	–	–	–	–	–	–	–	–	–	–
		x 1¼	x 32	–	–	–	–	–	–	–	–	–	–	–
		x 1½	x 40	–	–	–	–	–	–	–	–	–	–	–
		x 2	x 50	1	1.68	43	1.69	43	0.43	11	1.25	32	–	–
3	80	x 1	x 25	–	–	–	–	–	–	–	–	–	–	–
		x 1¼	x 32	–	–	–	–	–	–	–	–	–	–	–
		x 1½	x 40	–	–	–	–	–	–	–	–	–	–	–
		x 2	x 50	–	–	–	–	–	–	–	–	–	–	–
		x 2½	x 65	–	–	–	–	–	–	–	–	–	–	–

To minimize the possibility of cracking of the fillet welds, it is recommended that the shank portion of the reducer be withdrawn approximately .0625 in. *(1.6 mm)* away from the contact with the bottom of the socket before starting the weld. Likewise, the pipe is to be kept away from contacting the bottom of the reducer socket before welding.

Forged Steel Fittings

Pressure Ratings		
Class	Schedule	
	N.P.T.	S.W.
2000	80	-
3000	160	80
6000	XXS/XXH	160

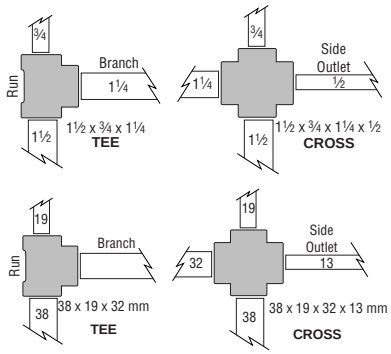
In accordance with ASME standard B16.11 - "Forged Fi tings, Socket-welding and Threaded" this table show the schedule of pipe corresponding to each class of fitting for rating purposes.

ASME B16.11 provides that the maximum allowable pressure of a fitting be computed in accordance with the applicable piping code or regulation for straight seamless pipe or for material of equivalent composition and mechanical properties to the fitting. Any corrosion or mechanical allowances and any reduction in allowable stress due to temperature or other service conditions must be applied to the pipe and fitting alike.

Reducing Fittings

Reducing elbows, tees and crosses are available in both threaded and socket-welding.

On reducing tees and crosses give the size of the largest run opening; then give the opposite opening. On a tee give the branch size last. On a cross give the largest side outlet third and the opposite opening last.



Forged Steel Anvilets

Anvil **Anvilets** provide a strong branch pipe connection, considerably stronger than a welded pipe-to-pipe connection. Consequently, with good welding procedures, Anvil **Anvilets** offer greater resistance to distortion and bursting.

Anvil **Anvilets** readily and economically permit the adding of branch connectors to existing piping installations, eliminating the relatively higher cost of cutting or disassembly and re-assembly required for the installation of tees.

Anvil **Anvilets** of the same outlet size as a header or run pipe size (i.e. "Full Size" **Anvilets**) are so proportioned that the (elliptically-shaped) hole in the header pipe has the minimum weakening or distortion effect, and yet provides good fluid flow characteristics.

SPECIFICATIONS

Chemical and physical properties are rigidly controlled to ensure consistently high quality. Physical and chemical test reports are available on request. Traceability of individual **Anvilets** can be established through the heat code of each fitting.

Anvil **Anvilets** meet the requirements of MSS standard SP-97. They are forged from steel which complies with ASTM A105.

Threaded Anvilets - conform with ASME B1.20.1.

Socket-Weld Anvilets - dimensions conform with ASME B16.11.

Buttweld Anvilets - ends conform with ASME B16.25.

REINFORCEMENT REQUIREMENTS

ASME B31.1 Power Piping Code
ASME B31.3 Refinery Code

FORGING MARKINGS

Anvil **Anvilets** are clearly marked with the following:

- ❑ Outlet size
- ❑ Range of run pipe sizes that the **Anvilet** will fit
- ❑ The weight, schedule number, or pressure class
- ❑ The material specification
- ❑ Steel heat code identification

INSTALLATION NOTE

Anvil **Anvilets** are designed to have no more than a 1/16" gap *(1.6mm)* between the base or skirt of the **Anvilet** when it is seated directly upon the appropriate run pipe. However, it is recommended that the skirt of **Anvilets** be held slightly above the run pipe and tack welded to provide a small continuous root gap between the skirt and run pipe before completing the all-around welding beads or fillet.

SPECIALS

Your local Anvil Branch will be more than happy to assist you with specially machined outlets and those made of alloy material.

PRESSURE TEMPERATURE RATINGS

MSS standard Practice SP-97 gives the following correlation between fitting pressure class and pipe schedule number/wall thickness designation for calculation of pressure-temperature ratings:

Branch Connection Type	Pressure Class of Fitting	Branch Connection Size		Pipe Wall for Rating Basis
		NPS	DN	
Buttweld	STD	⅛ - 24	6 - 600	STD
	XS/XH	⅛ - 24	6 - 600	XS/XH
	SCH 160	½ - 6	15 - 150	SCH 160
Threaded	3,000	¼ - 4	8 - 100	XS/XH
	6,000	½ - 2	15 - 50	SCH 160
Socket-Welding	3,000	½ - 2	15 - 50	XS/XH
	6,000	½ - 2	15 - 50	SCH 160

The maximum allowable pressure of a fitting is computed in accordance with the applicable piping code or regulation for straight seamless header (run) pipe or for material of equivalent composition and mechanical properties to the fitting. Any corrosion or mechanical allowances and any reduction in allowable stress due to temperature or other service conditions, must be applied to the pipe and fitting alike.

Forged Steel Anvilets
Run Size Consolidation

Run Size Consolidation

Anvilets are manufactured to cover as many run sizes as possible per outlet size.The range of run sizes is based on a maximum gap of 1/16" *(1.6mm)* between the fitting and the pipe (on the largest size of run pipe shown on the fitting).The following charts show the range of run pipe sizes per outlet size.

standard, XS/XH & Class 3000 Fittings

For outlet sizes 5 to 36 NPS *(125 - 900 DN)*, order for specific run pipe size

NPS		Nominal Run Pipe Size		Nominal Run Pipe Size	
NPS	*DN*	*NPS*	*DN*	*NPS*	*DN*
⅛	6	⅜ x ⅛	10 x 6	2½-1¼ x ⅛	65 - 32 x 6
		½ x ⅛	15 x 6	36-3 x ⅛	900 - 80 x 6
		1 - ¾ x ⅛	25 - 20 x 6	–	–
¼	8	⅜ x ¼	10 x 8	2½-1¼ x ¼	65 - 32 x 8
		½ x ¼	15 x 8	36-3 x ¼	900 - 80 x 8
		1 - ¾ x ¼	25 - 20 x 8	–	–
⅜	10	½ x ⅜	15 x 10	2½-1¼ x ⅜	65 - 32 x 10
		1 - ¾ x ⅜	25 - 20 x 10	36-3 x ⅜	900 - 80 x 10
½	15	½ x ½	15 x 15	2½-2 x ½	65 - 50 x 15
		¾ x ½	20 x 15	8-3 x ½	200 - 80 x 15
		1 x ½	25 x 15	36-10 x ½	900 - 250 x 15
		1½-1¼x½	40 - 32 x 15	–	–
¾	20	¾ x ¾	20 x 20	5-3 x ¾	125 - 80 x 20
		1 x ¾	25 x 20	12-6 x ¾	300 - 150 x 20
		1½-1¼x¾	40 - 32 x 20	36-14 x ¾	900 - 350 x 20
		2½-2 x ¾	65 - 50 x 20	–	–
1	25	1 x 1	25 x 25	3½-3 x 1	90 - 80 x 25
		1¼ x 1	32 x 25	5-4 x 1	125 - 100 x 25
		1½ x 1	40 x 25	10-6 x 1	250 - 150 x 25
		2 x 1	50 x 25	36-12 x 1	900 - 300 x 25
		2½ x 1	65 x 25	–	–
1¼	32	1¼ x 1¼	32 x 32	5-4 x 1¼	125 - 100 x 32
		1½ x 1¼	40 x 32	8-6 x 1¼	200 - 150 x 32
		2 x 1¼	50 x 32	18-10 x 1¼	450 - 250 x 32
		2½ x 1¼	65 x 32	36-20 x 1¼	900 - 500 x 32
		3½-3 x 1¼	90 - 80 x 32	–	–
1½	40	1½ x 1½	40 x 40	6-5 x 1½	150 - 125 x 40
		2 x 1½	50 x 40	12-8 x 1½	300 - 200 x 40
		2½ x 1½	65 x 40	24-14 x 1½	600 - 350 x 40
		3 x 1½	80 x 40	36-26 x 1½	900 - 650 x 40
		4-3½ x 1½	100 - 90 x 40	–	–
2	50	2 x 2	50 x 50	5 x 2	125 x 50
		2½ x 2	65 x 50	6 x 2	150 x 50
		3 x 2	80 x 50	10-8 x 2	250 - 200 x 50
		4-3½ x 2	100 - 90 x 50	18-12 x 2	450 - 300 x 50
		–	–	36-20 x 2	900 - 500 x 50
2½	65	2½ x 2½	65 x 65	6 x 2½	150 x 65
		3 x 2½	80 x 65	8 x 2½	200 x 65
		3½ x 2½	90 x 65	12-10 x 2½	300 - 250 x 65
		4 x 2½	100 x 65	18-14 x 2½	450 - 350 x 65
		5 x 2½	125 x 65	36-20 x 2½	900 - 500 x 65
3	80	3 x 3	80 x 80	8 x 3	200 x 80
		3½ x 3	90 x 80	10 x 3	250 x 80
		4 x 3	100 x 80	14-12 x 3	350 - 300 x 80
		5 x 3	125 x 80	20-16 x 3	500 - 400 x 80
		6 x 3	150 x 80	36-24 x 3	900 - 600 x 80
3½	90	3½ x 3½	90 x 90	10 x 3½	250 x 90
		4 x 3½	100 x 90	14-12 x 3½	350 - 300 x 90
		5 x 3½	125 x 90	20-16 x 3½	500 - 400 x 90
		6 x 3½	150 x 90	36-24 x 3½	900 - 600 x 90
		8 x 3½	200 x 90	–	–
4	100	4 x 4	100 x 100	10 x 4	250 x 100
		5 x 4	125 x 100	14-12 x 4	350 - 300 x 100
		6 x 4	150 x 100	20-16 x 4	500 - 400 x 100
		8 x 4	200 x 100	36-24 x 4	900 - 600 x 100

Example: 12-8 x 1½ NPS *(300 - 200 x 50 DN)*
12" NPS *(300 DN)* — is the largest run pipe size for which the fitting is applicable.
8" NPS *(200 DN)* — is the smallest run pipe size for which the fitting is applicable.
1½" NPS *(50 DN)* — is the outlet (branch) size.

Sch. 160 & XXS/XXH

For outlet sizes 2½ to 12 NPS *(65 - 300 DN)*, order for specific run pipe size

NPS		Nominal Run Pipe Size		Nominal Run Pipe Size	
NPS	*DN*	*NPS*	*DN*	*NPS*	*DN*
½	15	½ x ½	15 x 15	–	–
		1¼-¾ x ½	32 - 20 x 15	–	–
		36-1½ x ½	900 - 40 x 15	–	–
¾	20	1-¾ x ¾	25 - 20 x 20	–	–
		2-1¼ x ¾	50 - 32 x 20	–	–
		6-2½ x ¾	150 - 65 x 20	–	–
		36-8 x ¾	900 - 200 x 20	–	–
1	25	1 x 1	25 x 25	–	–
		2½-1¼ x 1	65 - 32 x 25	–	–
		10-3 x 1	250 - 80 x 25	–	–
		36-12 x 1	900 - 300 x 25	–	–
1¼	32	1½-1¼x 1¼	40 - 32 x 32	–	–
		2½-2 x 1¼	65 - 50 x 32	–	–
		10-3 x 1¼	250 - 80 x 32	–	–
		36-12 x 1¼	900 - 300 x 32	–	–
1½	40	1½ x 1½	40 x 40	20-10 x 1½	500 - 250 x 40
		2½-2 x 1½	65 - 50 x 40	22 x 1½	550 x 40
		3½-3 x 1½	90 - 80 x 40	36-24 x 1½	900 - 600 x 40
		8-4 x 1½	200 -100 x 40	–	–
2	50	2 x 2	50 x 50	8-6 x 2	200 - 150 x 50
		2½ x 2	65 x 50	18-10 x 2	450 - 250 x 50
		3½-3 x 2	90 -80 x 50	36-20 x 2	900 - 500 x 50
		5-4 x 2	125 - 100 x 50	–	–

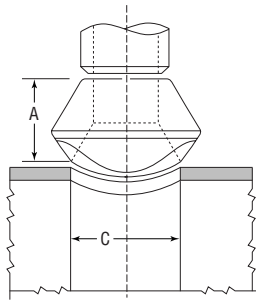
Class 6000 Fittings

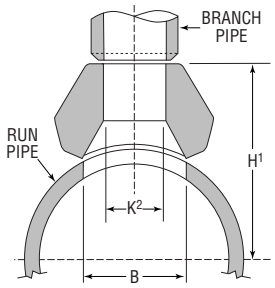
For outlet sizes 2½ to 12 NPS, order for specific run pipe size

NPS		Nominal Run Pipe Size		Nominal Run Pipe Size	
NPS	*DN*	*NPS*	*DN*	*NPS*	*DN*
1/2	15	1-¾ x 1/2	25 x 15	–	–
		2-1¼ x ½	50 x 15	–	–
		6-2½ x ½	150 x 15	–	–
		36-8 x ½	900 x 15	–	–
¾	20	1 x ¾	25 x 20	–	–
		2½-1¼x¾	65 x 20	–	–
		10-3 x ¾	250 x 20	–	–
		36-12 x ¾	900 x 20	–	–
1	25	1½-1¼ x 1	40 x 25	–	–
		2½-2 x 1	65 x 25	–	–
		10-3 x 1	250 x 25	–	–
		36-12 x 1	900 x 25	–	–
1¼	32	1½ x 1¼	40 x 32	36-10 x 1¼	900 - 250 x 32
		2½-2 x 1¼	65 x 32	–	–
		3½-3 x 1¼	90 x 32	–	–
		8-4 x 1¼	200 x 32	–	–
1½	40	2 x 1½	50 x 40	8-6 x 1½	200 - 150 x 40
		2½ x 1½	65 x 40	18-10 x 1½	450 - 150 x 40
		3½-3 x 1½	90 x 40	36-20 x 1½	900 - 500 x 40
		5-4 x 1½	125 x 40	–	–
2	50	2[5] x 2	65 x 50	6 x 2	150 x 50
		3 x 2	80 x 50	10-8 x 2	250 - 200 x 50
		4 x 2	100 x 50	20-12 x 2	500 - 300 x 50
		5 x 2	125 x 50	36-24 x 2	900 - 600 x 50

Note: Clearly specify the schedules or weights of the branch and run pipe if they differ.
Example: 3" NPS *(80 DN)* Sch. 80 x 1½" NPS *(40 DN)* Sch 40 BW Anvilet

Buttweld Anvilets
Full and Reducing Sizes - Standard & XS/XH





[1] See following page for "H" Dimension.

K[2] Diameter K of Anvilet bore is the same as the inside diameter of the branch pipe of matching weight or schedule.

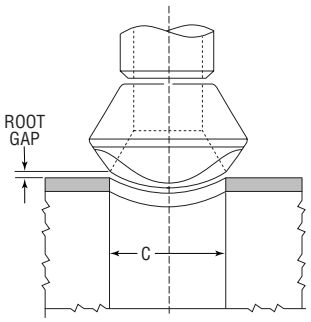
Outlet Size		Nominal Run Pipe Size		Standard								XS/XH							
				A		B		C		Weight		A		B		C		Weight	
NPS	DN	NPS	DN	in	mm	in	mm	in	mm	lbs	kg	in	mm	in	mm	in	mm	lbs	kg
½	15	½	15	¾	19	⅝	16	15/16	24	0.16	0.07	¾	19	⅝	16	15/16	24	0.17	0.08
		¾ - 36	20 - 900	¾	19	15/16	24	15/16	24	0.17	0.08	¾	19	15/16	24	15/16	24	0.19	0.09
¾	20	¾	20	⅞	22	13/16	22	1 3/16	30	0.25	0.11	⅞	22	13/16	22	1 3/16	30	0.26	0.12
		1 - 36	25 - 900	⅞	22	1 3/16	30	1 3/16	30	0.26	0.12	⅞	22	1 3/16	30	1 3/16	30	0.30	0.14
1	25	1	25	1 1/16	27	1 1/32	26	1 7/16	37	0.42	0.19	1 1/16	27	1 1/32	26	1 7/16	37	0.44	0.20
		1¼ - 36	32 - 900	1 1/16	27	1 7/16	37	1 7/16	37	0.50	0.23	1 1/16	27	1 7/16	37	1 7/16	37	0.53	0.24
1¼	32	1¼	32	1¼	32	1⅜	35	1¾	44	0.75	0.34	1¼	32	1⅜	35	1¾	44	0.77	0.35
		1½- 36	40 - 900	1¼	32	1¾	44	1¾	44	0.82	0.37	1¼	32	1¾	44	1¾	44	0.88	0.40
1½	40	1½	40	1 5/16	33	1⅝	41	2	51	0.85	0.39	1 5/16	33	1⅝	41	2	51	0.90	0.41
		2- 36	50 - 900	1 5/16	33	2	51	2	51	1.2	0.54	1 5/16	33	2	51	2	51	1.3	0.59
2	50	2	50	1½	38	2 1/16	52	2 9/16	65	1.6	0.73	1½	38	2 1/16	52	2 9/16	65	1.7	0.77
		2½ - 36	65 - 900	1½	38	2 9/16	65	2 9/16	65	1.9	0.86	1½	38	2 9/16	65	2 9/16	65	1.8	0.82
2½	65	2½	65	1⅝	41	2 7/16	62	3	76	2.4	1.1	1⅝	41	2 7/16	62	3	76	2.6	1.2
		3- 36	80 - 900	1⅝	41	3	76	3	76	2.7	1.2	1⅝	41	3	76	3	76	2.7	1.2
3	80	3	80	1¾	44	3 3/16	78	3 11/16	94	3.8	1.7	1¾	44	3 3/16	78	3 11/16	94	4.3	2.0
		3½ - 36	90 - 900	1¾	44	3 11/16	94	3 11/16	94	4.2	1.9	1¾	44	3 11/16	94	3 11/16	94	4.2	1.9
3½	90	3½	90	2	51	3 9/16	90	4	102	5.0	2.3	2	51	3 9/16	90	4	102	5.1	2.3
		4 - 36	100 - 900	1⅞	48	4	102	4	102	5.5	2.5	1⅞	48	4	102	4	102	5.6	2.5
4	100	4	100	2	51	4	102	4¾	121	7.6	3.4	2	51	4	102	4¾	121	7.5	3.4
		5 - 36	125 - 900	2	51	4¾	121	4¾	121	7.1	3.2	2	51	4¾	121	4¾	121	7.0	3.2
5	125	5	125	2⅛	54	5 1/16	129	5 13/16	149	8.5	3.9	2 1/16	52	5 1/16	129	5 13/16	149	7.5	3.4
		6 - 36	150 - 900	2¼	57	—	—	5 9/16	141	10	4.7	2¼	57	—	—	5 9/16	141	10	4.7
6	150	6	150	2⅜	60	6 1/16	154	6 11/16	170	14	6.4	3 1/16	78	6 1/16	154	6 11/16	170	15	6.8
		8- 36	200 - 900	2⅜	60	—	—	6 11/16	170	12	5.4	3 1/16	78	—	—	6 11/16	170	23	10
8	200	8	200	2¾	70	7 15/16	202	8 11/16	221	28	13	3⅜	98	7⅝	194	8 11/16	221	32	15
		10 - 36	250 - 900	2¾	70	—	—	8 11/16	221	23	10	3⅜	98	—	—	8 11/16	221	37	17
10	250	10	250	3 1/16	78	10	254	10 13/16	276	39	18	3½	89	9¾	248	10 7/16	265	46	21
		12 - 36	300 - 900	3 1/16	78	—	—	10 13/16	276	36	16	3 11/16	94	—	—	10 7/16	265	46	21
12	300	12	300	3⅜	86	12	305	12 13/16	327	65	29	3 15/16	100	11¾	298	13	330	61	28
		14 - 36	350 - 900	3⅜	86	—	—	12 13/16	327	59	27	4 1/16	103	—	—	12½	318	61	28
14	350	14	350	3½	89	13¼	337	14 1/16	357	70	32	4⅛	105	13	330	14 5/16	364	75	34
		16 - 36	400 - 900	3½	89	—	—	14 1/16	357	66	30	3 15/16	100	—	—	13 13/16	352	70	32
16	400	16	400	3 11/16	94	15¼	387	16 1/16	408	92	42	4 7/16	113	15	381	16½	419	115	52
		18 - 36	450 - 900	3 11/16	94	—	—	16 1/16	408	75	34	4 3/16	106	—	—	15⅞	403	102	46
18	450	18	450	4 1/16	103	17¼	438	18⅝	473	125	57	4 11/16	119	17	432	18⅝	473	130	59
		20 - 36	500 - 900	3 13/16	98	—	—	18 1/16	459	97	44	4⅜	111	—	—	17 15/16	456	130	59
20	500	20	500	4⅝	117	19¼	489	20 1/16	510	175	79	5	127	19	483	20 13/16	530	187	85
		24 - 36	600 - 900	4	102	—	—	20	508	118	54	4 11/16	119	—	—	20 1/16	510	158	72
24	600	24	600	5⅜	137	23¼	591	25⅛	638	280	127	5½	140	23	584	25⅛	638	316	143
		26 - 36	650 - 900	4 9/16	116	—	—	24 3/16	614	220	100	5½	140	—	—	24 3/16	614	290	132

Each outlet size of the reducing Anvilets listed above is supplied in several different ranges of run pipe size. (See page PF-34*)*

Standard Weight: standard weight buttweld Anvilets are used with all sizes of standard pipe or Sch. 40 pipe, up to and including 10 NPS *(250 DN)*. These Anvilets may be used in conjunction with Sch. 40 and 2000 lb. fittings. Sch. 40 buttweld Anvilets of outlet size 24 NPS *(600 DN)* and over are available upon request.

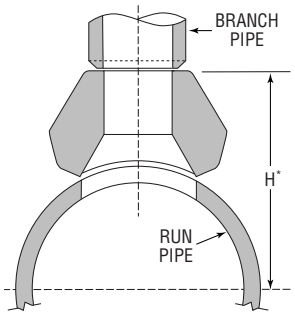
Extra Strong: Extra Strong buttweld Anvilets are used with all sizes of XS (sometimes referred to as XH) pipe and are used with Sch. 80 pipe up to and including sizes 8 NPS *(200 DN)*. These Anvilets may be used in conjunction with Sch. 80 and 3000 lb. fittings. Sch. 80 buttweld Anvilets of outlet size 24 NPS *(600 DN)* and over are available upon request.

Buttweld Anvilets - Dimension "H"* (NPS)



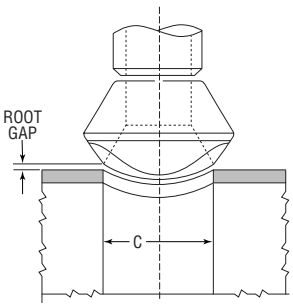
*Dimension 'H' is the distance in inches from the center of the run pipe to the face of the Anvilet. The weld or root gap is not included in the 'H' dimension below.

Dimension 'H' is also indicated on the diagrams shown on page PF-35 and page PF-36.



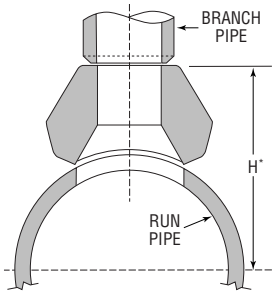
Nom. Run Pipe Size (NPS)	Pipe Weight or Sch. No.	OUTLET SIZES (NPS)																						
		1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	3 1/2	4	5	6	8	10	12	14	16	18	20	24
3/8	STD & XS	1	1																					
1/2	STD & XS	1 1/16	1 1/16	1 3/16	1 3/16																			
	S 160 & XXS				1 1/2																			
3/4	STD & XS	1 3/16	1 3/16	1 1/4	1 1/4	1 7/16																		
	S 160 & XXS				1 5/8	1 3/4																		
1	STD & XS	1 5/16	1 5/16	1 3/8	1 3/8	1 1/2	1 11/16																	
	S 160 & XXS				1 3/4	1 7/8	2 1/8																	
1 1/4	STD & XS	1 7/16	1 7/16	1 9/16	1 9/16	1 11/16	1 7/8	2 1/16																
	S 160 & XXS				1 15/16	2 1/16	2 5/16	2 9/16																
1 1/2	STD & XS	1 9/16	1 9/16	1 11/16	1 11/16	1 13/16	2	2 3/16	2 1/4															
	S 160 & XXS				2 1/16	2 3/16	2 7/16	2 11/16	2 15/16															
2	STD & XS	1 13/16	1 13/16	1 15/16	1 15/16	2 1/16	2 1/4	2 7/16	2 1/2	1 11/16														
	S 160 & XXS				2 5/16	2 7/16	2 11/16	2 15/16	3 3/16	3 3/8														
2 1/2	STD & XS	2 1/16	2 1/16	2 3/16	2 3/16	2 5/16	2 1/2	2 11/16	2 3/4	2 15/16	3 1/16													
	S 160 & XXS				2 9/16	2 11/16	2 15/16	3 3/16	3 7/16	3 5/8	3 7/8													
3	STD & XS	2 3/8	2 3/8	2 1/2	2 1/2	2 5/8	2 13/16	3	3 1/16	3 1/4	3 3/8	3 1/2												
	S 160 & XXS				2 7/8	3	3 1/4	3 1/2	3 3/4	3 15/16	4 3/16	4 5/8												
3 1/2	STD & XS	2 5/8	2 5/8	2 3/4	2 3/4	2 7/8	3 1/16	3 1/4	3 5/16	3 1/2	3 5/8	3 3/4	3 7/8											
4	STD & XS	2 7/8	2 7/8	3	3	3 1/8	3 5/16	3 1/2	3 9/16	3 3/4	3 7/8	4	4 1/8	4 1/4										
	S 160 & XXS				3 3/8	3 1/2	3 3/4	4	4 1/4	4 7/16	4 11/16	5 1/8	—	5 9/16										
5	STD & XS	3 7/16	3 7/16	3 9/16	3 9/16	3 11/16	3 7/8	4 1/16	4 1/8	4 5/16	4 7/16	4 9/16	4 11/16	4 13/16	5 1/16									
	S 160 & XXS				3 15/16	4 1/16	4 5/16	4 9/16	4 13/16	5	5 1/4	5 11/16	—	6 1/8	6 1/2									
6	STD	3 15/16	3 15/16	4 1/16	4 1/16	4 3/16	4 3/8	4 9/16	4 5/8	4 13/16	4 15/16	5 1/16	5 3/16	5 5/16	5 9/16	5 11/16								
	XS	3 15/16	3 15/16	4 1/16	4 1/16	4 3/16	4 3/8	4 9/16	4 5/8	4 13/16	4 15/16	5 1/16	5 3/16	5 5/16	5 9/16	6 3/8								
	S 160 & XXS				4 7/16	4 9/16	4 13/16	5 1/16	5 5/16	5 1/2	5 3/4	6 3/16	—	6 5/8	7	7 7/16								
8	STD	4 15/16	4 15/16	5 1/16	5 1/16	5 3/16	5 3/8	5 9/16	5 5/8	5 13/16	5 15/16	6 1/16	6 3/16	6 5/16	6 9/16	6 11/16	7 1/16							
	XS	4 15/16	4 15/16	5 1/16	5 1/16	5 3/16	5 3/8	5 9/16	5 5/8	5 13/16	5 15/16	6 1/16	6 3/16	6 5/16	6 9/16	7 3/8	8 3/16							
10	STD	6	6	6 1/8	6 1/8	6 1/4	6 7/16	6 5/8	6 11/16	6 7/8	7	7 1/8	7 1/4	7 3/8	7 5/8	7 3/4	8 1/8	8 7/16						
	XS	6	6	6 1/8	6 1/8	6 1/4	6 7/16	6 5/8	6 11/16	6 7/8	7	7 1/8	7 1/4	7 3/8	7 5/8	8 7/16	9 1/4	9 1/8						
12	STD	7	7	7 1/8	7 1/8	7 1/4	7 7/16	7 5/8	7 11/16	7 7/8	8	8 1/8	8 1/4	8 3/8	8 5/8	8 3/4	9 1/8	9 7/16	9 3/4					
	XS	7	7	7 1/8	7 1/8	7 1/4	7 7/16	7 5/8	7 11/16	7 7/8	8	8 1/8	8 1/4	8 3/8	8 5/8	9 7/16	10 1/4	10 1/16	10 5/16					
14	STD	7 5/8	7 5/8	7 3/4	7 3/4	7 7/8	8 1/16	8 1/4	8 5/16	8 1/2	8 5/8	8 3/4	8 7/8	9	9 1/4	9 3/8	9 3/4	10 1/16	10 3/8	10 1/2				
	XS	7 5/8	7 5/8	7 3/4	7 3/4	7 7/8	8 1/16	8 1/4	8 5/16	8 1/2	8 5/8	8 3/4	8 7/8	9	9 1/4	10 1/16	10 7/8	10 11/16	11 1/16	11 1/8				
16	STD	8 5/8	8 5/8	8 3/4	8 3/4	8 7/8	9 1/16	9 1/4	9 5/16	9 1/2	9 5/8	9 3/4	9 7/8	10	10 1/4	10 3/8	10 3/4	11 1/16	11 3/8	11 1/2	11 11/16			
	XS	8 5/8	8 5/8	8 3/4	8 3/4	8 7/8	9 1/16	9 1/4	9 5/16	9 1/2	9 5/8	9 3/4	9 7/8	10	10 1/4	11 1/16	11 7/8	11 11/16	12 1/16	11 15/16	12 7/16			
18	STD	9 5/8	9 5/8	9 3/4	9 3/4	9 7/8	10 1/16	10 1/4	10 5/16	10 1/2	10 5/8	10 3/4	10 7/8	11	11 1/4	11 3/8	11 3/4	12 1/16	12 3/8	12 1/2	12 11/16	13 1/16		
	XS	9 5/8	9 5/8	9 3/4	9 3/4	9 7/8	10 1/16	10 1/4	10 5/16	10 1/2	10 5/8	10 3/4	10 7/8	11	11 1/4	12 1/16	12 7/8	12 11/16	13 1/16	12 15/16	13 3/16	13 11/16		
20	STD	10 5/8	10 5/8	10 3/4	10 3/4	10 7/8	11 1/16	11 1/4	11 5/16	11 1/2	11 5/8	11 3/4	11 7/8	12	12 1/4	12 3/8	12 3/4	13 1/16	13 3/8	13 1/2	13 11/16	13 13/16	14 5/8	
	XS	10 5/8	10 5/8	10 3/4	10 3/4	10 7/8	11 1/16	11 1/4	11 5/16	11 1/2	11 5/8	11 3/4	11 7/8	12	12 1/4	13 1/16	13 7/8	13 11/16	14 1/16	13 15/16	14 3/16	14 3/8	15	
24	STD	12 5/8	12 5/8	12 3/4	12 3/4	12 7/8	13 1/16	13 1/4	13 5/16	13 1/2	13 5/8	13 3/4	13 7/8	14	14 1/4	14 3/8	14 3/4	15 1/16	15 3/8	15 1/2	15 11/16	15 13/16	16	17 3/8
	XS	12 5/8	12 5/8	12 3/4	12 3/4	12 7/8	13 1/16	13 1/4	13 5/16	13 1/2	13 5/8	13 3/4	13 7/8	14	14 1/4	15 1/16	15 7/8	15 11/16	16 1/16	15 15/16	16 3/16	16 3/8	16 11/16	17 1/2

Buttweld Anvilets - Dimension "H"*(DN)



*Dimension 'H' is the distance in inches from the center of the run pipe to the face of the Anvilet. The weld or root gap is not included in the 'H' dimension below.

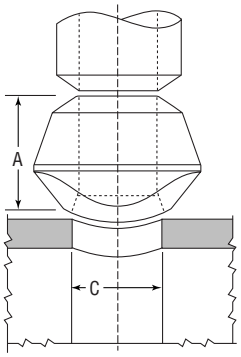
Dimension 'H' is also indicated on the diagrams shown on page PF-35 and page PF-36.

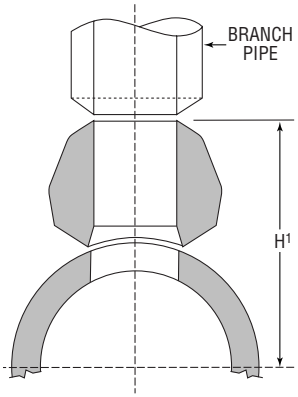


Nominal Run Pipe Size (DN)	Pipe Weight or Sch. No.	OUTLET SIZES (DN)																							
		6	8	10	15	20	25	32	40	50	65	80	90	100	125	150	200	250	300	350	400	450	500	600
10	STD & XS	25	25																					
15	STD & XS	27	27	30	30																			
	S 160 & XXS				38																			
20	STD & XS	30	30	32	32	37																		
	S 160 & XXS				41	44																		
25	STD & XS	33	33	35	35	38	43																	
	S 160 & XXS				44	48	54																	
32	STD & XS	37	37	40	40	43	48	52																
	S 160 & XXS				49	52	59	65																
40	STD & XS	40	40	43	43	46	51	56	57															
	S 160 & XXS				52	56	62	68	75															
50	STD & XS	46	46	49	49	52	57	62	64	43														
	S 160 & XXS				59	62	68	75	81	86														
65	STD & XS	52	52	56	56	59	64	68	70	75	78													
	S 160 & XXS				65	68	75	81	87	92	98													
80	STD & XS	60	60	64	64	67	71	76	78	83	86	89												
	S 160 & XXS				73	76	83	89	95	100	106	117												
90	STD & XS	67	67	70	70	73	78	83	84	89	92	95	98											
100	STD & XS	73	73	76	76	79	84	89	90	95	98	102	105	108										
	S 160 & XXS				86	89	95	102	108	113	119	130	—	141										
125	STD & XS	87	87	90	90	94	98	103	105	110	113	116	119	122	129									
	S 160 & XXS				100	103	110	116	122	127	133	144	—	156	165									
150	STD	100	100	103	103	106	111	116	117	122	125	129	132	135	141	144								
	XS	100	100	103	103	106	111	116	117	122	125	129	132	135	141	162								
	S 160 & XXS				113	116	122	129	135	140	146	157	—	168	178	189								
200	STD	125	125	129	129	132	137	141	143	148	151	154	157	160	167	170	179							
	XS	125	125	129	129	132	137	141	143	148	151	154	157	160	167	187	208							
250	STD	152	152	156	156	159	164	168	170	175	178	181	184	187	194	197	206	214						
	XS	152	152	156	156	159	164	168	170	175	178	181	184	187	194	214	235	232						
300	STD	178	178	181	181	184	189	194	195	200	203	206	210	213	219	222	232	240	248					
	XS	178	178	181	181	184	189	194	195	200	203	206	210	213	219	240	260	256	262					
350	STD	194	194	197	197	200	205	210	211	216	219	222	225	229	235	238	248	256	264	267				
	XS	194	194	197	197	200	205	210	211	216	219	222	225	229	235	256	276	271	281	283				
400	STD	219	219	222	222	225	230	235	237	241	244	248	251	254	260	264	273	281	289	292	297			
	XS	219	219	222	222	225	230	235	237	241	244	248	251	254	260	281	302	297	306	303	316			
450	STD	244	244	248	248	251	256	260	262	267	270	273	276	279	286	289	298	306	314	318	322	332		
	XS	244	244	248	248	251	256	260	262	267	270	273	276	279	286	306	327	322	332	329	335	348		
500	STD	270	270	273	273	276	281	286	49	292	295	298	302	305	311	314	324	332	340	343	348	351	371	
	XS	270	270	273	273	276	281	286	49	292	295	298	302	305	311	332	352	348	357	354	360	365	381	
600	STD	321	321	324	324	327	332	337	338	343	346	349	352	356	362	365	375	383	391	394	398	402	406	441
	XS	321	321	324	324	327	332	337	338	343	346	349	352	356	362	383	403	398	408	405	411	416	424	445

Buttweld Anvilets
Full and Reducing Sizes Sch. 160 & XXS

[1]See page PF-36 for "H" dimensions





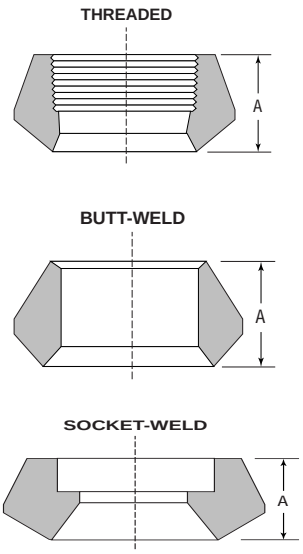
Outlet Size		A		C		Weight	
NPS	DN	in	mm	in	mm	lbs	kg
½	15	1⅛	29	9/16	14	0.25	0.11
¾	20	1¼	32	¾	19	0.71	0.32
1	25	1½	38	1	25	0.83	0.38
1¼	32	1¾	44	1 5/16	33	1.3	0.57
1½	40	2	51	1½	38	1.8	0.79
2	50	2 3/16	56	1 11/16	43	2.1	1.0
2½	65	2 7/16	62	2⅛	54	3.4	1.5
3	80	2⅞	73	2⅞	73	6.3	2.9
4	100	3 5/16	84	3⅞	98	11	4.8
5	125	3 11/16	94	4 13/16	124	14	6.5
6	150	4⅛	105	5¾	146	30	13

The reducing Anvilets listed above for outlet sizes ½ - 2 NPS *(15 - 50 DN)* are supplied in several different ranges of run pipe size for each outlet size. Please refer to run pipe size chart on page PF-34.

Schedule 160 and Double Extra Strong buttweld Anvilets may be used in conjunction with Class 6000 fittings.

Flat Anvilets – Class 3000 Threaded, Buttweld & Socket-Weld

Size		A		Weight		Illustration
NPS	DN	in	mm	lbs	kg	
¼	8	11/16	17	0.11	0.05	
⅜	10	13/16	22	0.20	0.09	
½	15	1	25	0.30	0.14	
¾	20	1 1/16	27	0.40	0.18	
1	25	1 9/32	33	0.70	0.32	
1¼	32	1 11/32	34	0.90	0.41	
1½	40	1⅜	35	1.2	0.54	
2	50	1½	38	1.8	0.82	
2½	65	1¾	44	2.7	1.2	
3	80	2	51	3.3	1.5	

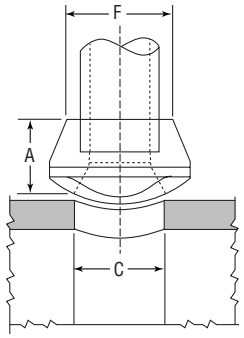


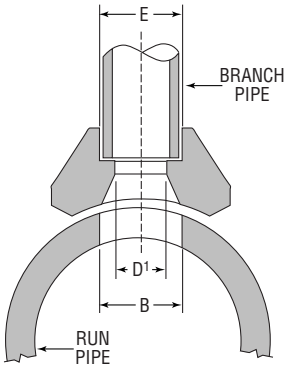
Flat Anvilets are designed to facilitate welding to a flat surface for the installation of branch pipes or fittings.

Class 6000 flat Anvilets are available on application.

Socket-Weld Anvilets

Full and Reducing Sizes Class 3000 and 6000





Class 3000 Reducing and Full Sizes

Outlet Size		Nominal Run Pipe Size		A		B		C		D ±.03		E ±.01 -.00		F		Weight	
NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
½	15	½	15	1	25	5/8	16	15/16	24	0.622	16	0.855	22	1¼	32	0.20	0.09
		¾ - 36	20 - 900	1	25	15/16	24	15/16	24	0.622	16	0.855	22	1¼	32	0.35	0.16
¾	20	¾	20	1 1/16	27	13/16	22	1 3/16	30	0.824	21	1.065	27	1 7/16	37	0.27	0.12
		1-36	25 - 900	1 1/16	27	1 3/16	30	1 3/16	30	0.824	21	1.065	27	1 7/16	37	0.40	0.18
1	25	1	25	1 5/16	33	1 1/16	27	1 7/16	37	1.049	27	1.330	34	1 13/16	47	0.60	0.27
		1¼ - 36	32 - 900	1 5/16	33	1 7/16	37	1 7/16	37	1.049	27	1.330	34	1 13/16	47	0.80	0.36
1¼	32	1¼	32	1 5/16	33	1 3/8	35	1¾	44	1.380	35	1.675	43	2 3/16	56	0.80	0.36
		1½ - 36	40 - 900	1 5/16	33	1¾	44	1¾	44	1.380	35	1.675	43	2 3/16	56	1.1	0.50
1½	40	1½	40	1 3/8	35	1 5/8	41	2	51	1.610	41	1.915	49	2 7/16	62	1.2	0.54
		2-36	50 - 900	1 3/8	35	2	51	2	51	1.610	41	1.915	49	2 7/16	62	1.5	0.68
2	50	2	50	1½	38	2 1/16	52	2 9/16	65	2.067	53	2.406	61	2 15/16	75	1.8	0.82
		2½ - 36	65 - 900	1½	38	2 9/16	65	2 9/16	65	2.067	53	2.406	61	2 15/16	75	2.0	0.91
2½	65	2½	65	1 9/16	40	2½	64	3	76	2.469	63	2.906	74	3 7/16	87	2.5	1.1
		3-36	80 - 900	1 9/16	40	3	76	3	76	2.469	63	2.906	74	3 7/16	87	3.0	1.4
3	80	3	80	1¾	44	3 1/16	78	3 11/16	94	3.068	78	3.535	90	4⅛	105	3.8	1.7
		3½ - 36	90 - 900	1¾	44	3 11/16	94	3 11/16	94	3.068	78	3.535	90	4⅛	105	4.2	1.9
3½	90	3½	90	2⅛	54	3 9/16	90	4	102	3.548	90	4.040	103	4 13/16	124	4.3	2.0
		4-36	100 - 900	2⅛	54	4	102	4	102	3.548	90	4.040	103	4 13/16	124	4.3	2.0
4	100	4	100	1⅞	48	4 1/16	103	4¾	121	4.026	102	4.545	115	5⅛	130	7.2	3.3
		5-36	125 - 900	1⅞	48	4¾	121	4¾	121	4.026	102	4.545	115	5⅛	130	8.0	3.6

Class 6000 Reducing Sizes (Full sizes not available)

Outlet Size		Nominal Run Pipe Size		A		B		C		D ±.03		E ±.01 -.00		F	
NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
½	15	¾ - 36	20 - 900	1¼	32	¾	19	.464	12	.855	22	1 9/16	40	0.58	15
¾	20	1-36	25 - 900	1 7/16	37	1	25	.612	16	1.065	27	1 25/32	45	0.90	23
1	25	1¼ - 36	32 - 900	1 9/16	40	1 5/16	24	.815	21	1.330	34	2¼	57	1.8	46
1¼	32	1½ - 36	40 - 900	1 5/8	41	1½	38	1.160	29	1.675	43	2 9/16	65	2.6	66
1½	40	2-36	50 - 900	1 11/16	43	1 15/16	49	1.338	34	1.915	49	3	76	3.0	76
2	50	2½ - 36	65 - 900	2 1/16	52	2¾	70	1.687	43	2.406	61	3 5/8	92	5.8	147

Each outlet size of the reducing Anvilets listed above is supplied in several different ranges of run pipe size. Please refer to the run pipe sizes chart on page PF-34.

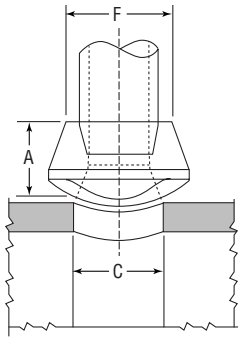
NOTE: [1]Tolerance on sizes 2½ NPS *(65 DN)* and larger is ±.06.

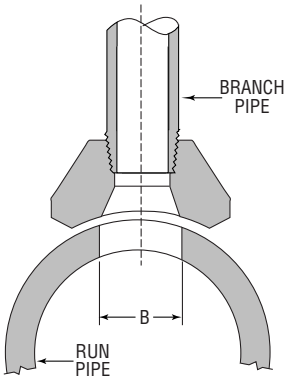
Class 3000 socket-weld Anvilets may be used with Std. and XS pipe.

Class 6000 socket-weld Anvilets may be used with Sch. 160 and XXS pipe.

Threaded Anvilets

Full and Reducing Size Class 3000 and 6000





Class 3000 Reducing and Full Sizes

Outlet Size		Nominal Run Pipe Size		A		B		C		F		Weight	
NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg
½	15	½	15	1	25	5/8	16	15/16	24	1 1/4	32	0.20	0.09
		¾ - 36	20 - 900	1	25	15/16	24	15/16	24	1 1/4	32	0.30	0.14
¾	20	¾	20	1 1/16	27	13/16	22	1 3/16	30	1 7/16	37	0.35	0.16
		1- 36	25 - 900	1 1/16	27	1 3/16	30	1 3/16	30	1 7/16	37	0.42	0.19
1	25	1	25	1 5/16	33	1 1/16	27	1 7/16	37	1 13/16	47	0.60	0.27
		1¼ - 36	32 - 900	1 5/16	33	1 7/16	37	1 7/16	37	1 13/16	47	0.80	0.36
1¼	32	1¼	32	1 5/16	33	1 3/8	35	1 3/4	44	2 3/16	56	0.85	0.39
		1½ - 36	40 - 900	1 5/16	33	1 3/4	44	1 3/4	44	2 3/16	56	1.2	0.54
1½	40	1½	40	1 3/8	35	1 5/8	41	2	51	2 7/16	62	1.3	0.59
		2 - 36	50 - 900	1 3/8	35	2	51	2	51	2 7/16	62	1.6	0.73
2	50	2	50	1½	38	2 1/16	52	2 9/16	65	2 15/16	75	1.7	0.77
		2½ - 36	65 - 900	1½	38	2 9/16	65	2 9/16	65	2 15/16	75	2.2	1.0
2½	65	2½	65	1 13/16	47	2½	64	3	76	3 7/16	87	2.5	1.1
		3- 36	80 - 900	1 13/16	47	3	76	3	76	3 7/16	87	3.0	1.4
3	80	3	80	2	51	3 1/16	78	3 11/16	94	4 1/8	105	4.3	2.0
		3½ - 36	90 - 900	2	51	3 11/16	94	3 11/16	94	4 1/8	105	4.4	2.0
3½	90	3½	90	2 1/8	54	3 9/16	90	4	102	4 13/16	124	4.5	2.0
		4 - 36	100 - 900	2 1/8	54	4	102	4	102	4 13/16	124	5.6	2.5
4	100	4	100	2 1/4	57	4 1/16	103	4 3/4	121	5 1/8	130	7.3	3.3
		5 - 30	125 - 900	2 1/4	57	4 3/4	121	4 3/4	121	5 1/8	130	8.3	3.8

Class 6000 Reducing Sizes (Full sizes not available)

Outlet Size		Nominal Run Pipe Size		A		B		C		F		Weight	
NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg
½	15	¾ - 36	20 - 900	1 1/4	32	¾	19	¾	19	1 9/16	40	0.60	0.27
¾	20	1 - 36	25 - 900	1 7/16	37	1	25	1	25	1 13/16	47	0.90	0.41
1	25	1¼ - 36	32 - 900	1 9/16	40	1 5/16	24	1 5/16	24	2 1/4	57	2.0	0.91
1¼	32	1½ - 36	40 - 900	1 9/16	40	1½	38	1½	38	2 9/16	65	3.0	1.4
1½	40	2 - 36	50 - 900	1 11/16	43	1 15/16	49	1 15/16	49	3	76	3.2	1.5
2	50	2½ - 36	65 - 900	2 1/16	52	2 3/4	70	2 3/4	70	3 5/8	92	6.0	2.7

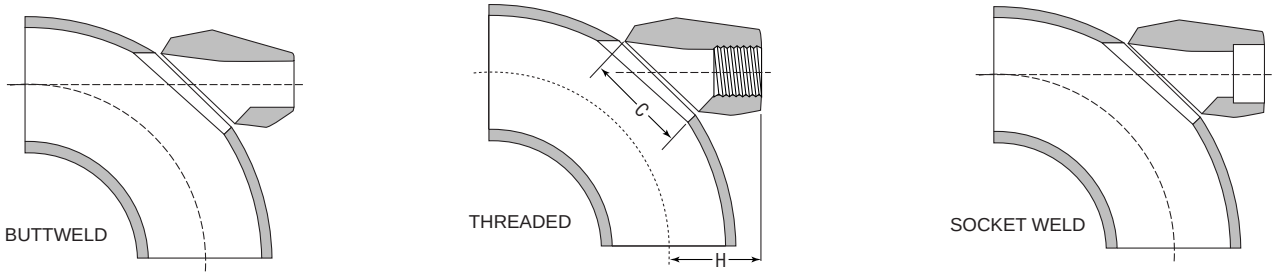
Each outlet size of the reducing Anvilets listed above is supplied in several different ranges of run pipe size. Please refer to the run pipe sizes chart on page PF-34.

CLASS 6000 threaded Anvilets are manufactured only in the sizes shown and may be used with Sch. 160 and XXS pipe.

CLASS 3000 threaded Anvilets may be used with standard and XS pipe.

Elbow Anvilets

Class 3000 and 6000 Buttweld, Threaded and Socket-Weld



Class 3000 Threaded and Socket-Weld/standard and XS/XH Buttweld

Outlet Size		Nom. Elbow Size		C		H		Weight	
NPS	DN	NPS	DN	in	mm	in	mm	lbs	kg
¼	8	36-1¼	900 - 32	1½	38	1 19/32	40	0.50	0.23
⅜	10	36-1¼	900 - 32	1½	38	1 19/32	40	0.50	0.23
½	15	36-1¼	900 - 32	1½	38	1 19/32	40	0.65	0.29
¾	20	36-1¼	900 - 32	1 23/32	44	1⅞	48	0.75	0.34
1	25	36-2	900 - 50	2⅛	54	2 3/16	56	1.1	0.52
1¼	32	36-2	900 - 50	1 21/32	42	2⅜	60	1.9	0.86
1½	40	36-2	900 - 50	3	76	2⅝	67	2.6	1.2
2	50	36-3	900 - 50	4⅛	105	3 3/16	81	5.3	2.4

Standard and XS/XH Buttweld, Only

Outlet Size		Nom. Elbow Size		C		H		Weight	
NPS	DN	NPS	DN	in	mm	in	mm	lbs	kg
2½	65	As specified	As specified	4 3/16	106	3¼	83	5.5	2.5
3	80	As specified	As specified	4 15/16	125	3 13/16	98	6.3	2.8
4	100	As specified	As specified	6 7/16	164	4½	114	12	5.3
6	150	As specified	As specified	9	229	6 3/16	157	28	13

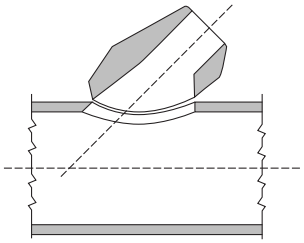
Class 6000 Threaded and Socket-Weld/Sch. 160 and XXS/XXH Buttweld

Outlet Size		Nom. Elbow Size)		C		H		Weight	
NPS	DN	NPS	DN	in	mm	in	mm	lbs	kg
¼	8	36-1¼	900 - 32	1⅜	35	1 19/32	40	0.75	0.34
⅜	10	36-1¼	900 - 32	1⅜	35	1 19/32	40	0.75	0.34
½	15	36-1¼	900 - 32	1 23/32	44	1⅞	48	0.85	0.39
¾	20	36-2	900 - 50	2⅛	54	2 3/16	56	1.3	0.57
1	25	36-2	900 - 50	2 21/32	67	2⅜	60	2.2	1.0
1¼	32	36-2	900 - 50	3	76	2⅝	67	3.9	1.8
1½	40	36-3	900 - 50	4⅛	105	3 3/16	81	6.2	2.8

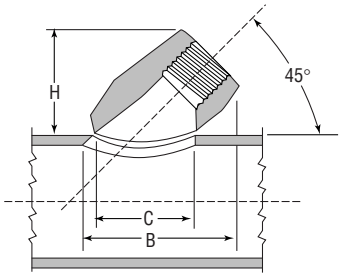
Elbow Anvilets are welded to 90° long radius elbows as branch connections for pipes and fittings.
They are also used as pipe hanger or support bosses.

Lateral Anvilets
Class 3000 and 6000 Buttweld, Threaded and Socket-Weld

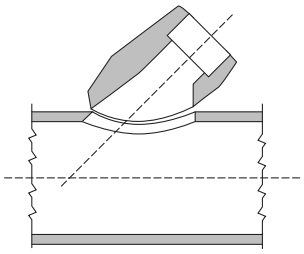
Lateral Anvilets provide a strong, readily attached 45° lateral outlet connection



BUTTWELD



THREADED



SOCKET WELD

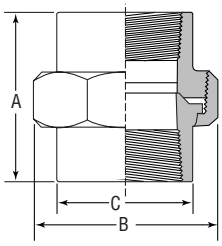
Class 3000 Threaded and Socket-Weld/standard and XS/XH Buttweld

Outlet Size		Nominal Run Pipe Size		H		B		C		Weight	
NPS	DN	NPS	DN	in	mm	in	mm	in	mm	lbs	kg
¼	8	2½-1¼ / 12-3	65 - 32 / 300 - 80	1½	38	2¼	57	1 7/16	37	0.50	0.23
⅜	10	2½-1¼ / 12-3	65 - 32 / 300 - 80	1½	38	2¼	57	1 7/16	37	0.50	0.23
½	15	2½-1¼ / 12-3	65 - 32 / 300 - 80	1½	38	2¼	57	1 7/16	37	0.65	0.29
¾	20	1½-1¼ / 5-2 / 12-6	40 - 32 / 125 - 50 / 300 - 150	1 13/16	47	2¾	70	1 23/32	44	0.75	0.34
1	25	2½-2 / 5-3 / 12-6	65 - 50 / 125 - 80 / 300 - 150	2⅛	54	3¼	83	2⅛	54	1.1	0.52
1¼	32	2½-2 / 5-3 / 12-6	65 - 50 / 125 - 80 / 300 - 150	2 9/16	65	3 13/16	98	2 21/32	67	1.9	0.86
1½	40	2½-2 / 5-3 / 12-6	65 - 50 / 125 - 80 / 300 - 150	2¾	70	4¼	108	3	76	2.6	1.2
2	50	5-4 / 8-6 / 12-10	125 - 100 / 200 - 150 / 300 - 150	3⅜	86	5⅜	137	4⅛	105	5.3	2.4

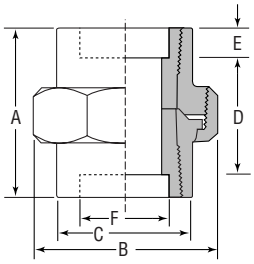
Class 6000 Threaded and Socket-Weld/Sch. 160 and XXS/XXH Buttweld

Outlet Size		Nominal Run Pipe Size		H		B		C		Weight	
NPS	DN	NPS	DN	in	mm	in	mm	in	mm	lbs	kg
¼	8	2½-1¼ /12-3	65 - 32 / 300 - 80	1½	38	2¼	57	1⅜	35	0.75	0.34
⅜	10	2½-1¼ /12-3	65 - 32 / 300 - 80	1½	38	2¼	57	1⅜	35	0.75	0.34
½	15	1½-1¼ / 5-2 /12-6	40 - 32 / 125 - 50 / 300 - 150	1 13/16	47	2¾	70	1 23/32	44	0.85	0.39
¾	20	2½-2 / 5-3 / 12-6	65 - 50 / 125 - 80 / 300 - 150	2⅛	54	3¼	83	2⅛	54	1.3	0.57
1	25	2½-2 / 5-3 / 12-6	65 - 50 / 125 - 80 / 300 - 150	2 9/16	65	3 13/16	98	2 21/32	67	2.2	1.0
1¼	32	2½-2 / 5-3 / 12-6	65 - 50 / 125 - 80 / 300 - 150	2¾	70	4¼	108	3	76	2.9	1.3
1½	40	5-4 / 8-6 / 12-10	125 - 100 / 200 - 150 / 300 - 150	3⅜	86	5⅜	137	4⅛	105	6.2	2.8

Forged Steel Unions



Threaded



Socket-Weld

Manufactured to MSS standard practice SP83
(Class 6000 by method of MSS SP83)

Class 3000
Threaded - Figure 2125 Socket-Weld - Figure 2126

Size		A		B		C*		D		E		F		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
1/8	6	1 11/16	43	1 31/64	38	53/64	21	25/32	20	7/16	11	0.420 0.440	11 11	0.38	0.17
1/4	8	1 11/16	43	1 31/64	38	53/64	21	25/32	20	7/16	11	0.555 0.575	14 15	0.36	0.16
3/8	10	1 27/32	47	1 11/16	43	1	25	31/32	25	7/16	11	0.690 0.710	18 18	0.50	0.23
1/2	15	2	51	1 15/16	49	1 3/16	30	1 3/32	28	7/16	11	0.855 0.875	22 22	0.69	0.32
3/4	20	2 5/16	59	2 3/8	60	1 15/32	37	1 5/32	29	9/16	14	1.065 1.085	27 28	1.2	0.53
1	25	2 7/16	62	2 25/32	71	1 25/32	45	1 3/8	35	9/16	14	1.330 1.350	34 34	1.6	0.74
1 1/4	32	2 7/8	73	3 23/64	85	2 7/32	686	1 45/64	43	9/16	14	1.675 1.695	43 43	2.6	1.2
1 1/2	40	3	76	3 23/64	85	2 35/64	65	1 7/8	48	9/16	14	1.915 1.935	49 49	3.4	1.5
2	50	3 1/2	89	4 27/64	112	3 1/16	78	2 1/16	52	11/16	17	2.406 2.426	61 62	5.1	2.3
2 1/2	65	4 1/4	108	5 15/64	133	3 9/16	90	2 3/8	60	7/8	22	2.906 2.931	74 74	8.8	4.0
3	80	4 7/16	113	6 5/32	156	4 9/32	109	2 7/16	62	1	25	3.535 3.560	90 90	13	5.7

Class 6000
Threaded - Figure 2127 Socket-Weld - Figure 2128

Size		A		B		C*		D		E		F		Weight	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
1/8	6	1 11/16	43	1 31/64	38	53/64	21	25/32	20	7/16	11	0.420 0.440	11 11	0.50	0.23
1/4	8	1 27/32	47	1 11/16	43	1	25	31/32	25	7/16	11	0.555 0.575	14 15	0.56	0.25
3/8	10	2	51	1 15/16	49	1 3/16	30	1 3/32	28	7/16	11	0.690 0.710	18 18	0.75	0.34
1/2	15	2 5/16	59	2 3/8	60	1 15/32	37	1 5/32	29	9/16	14	0.855 0.875	22 22	1.3	0.57
3/4	20	2 7/16	62	2 25/32	71	1 25/32	45	1 3/8	35	9/16	14	1.065 1.085	27 28	1.8	0.79
1	25	2 7/8	73	3 23/64	85	2 7/32	686	1 45/64	43	9/16	14	1.330 1.350	34 34	3.0	1.4
1 1/4	32	3	76	3 23/32	94	2 35/64	65	1 7/8	48	9/16	14	1.675 1.695	43 43	3.8	1.7
1 1/2	40	3 1/2	89	4 27/64	112	3 1/16	78	2 1/16	52	11/16	17	1.915 1.935	49 49	6.0	2.7
2	50	4 1/8	105	5 15/64	133	3 9/16	90	2 3/8	60	7/8	22	2.406 2.426	61 62	11	4.8

*"C" dimension measures across octagon corners or across the diameter as applicable. The 2 1/2" NPS *(65 DN)* and 3" NPS *(80 DN)* - 3000 and 2" NPS *(50 DN)* - 6000 sizes have octagonal male and female ends; the other sizes are round.

Forged Steel Unions

Lug Nut Unions

Lug Nut Unions have modified Stub-Acme threads and are ideal for applications requiring rapid assembly and/or breakdown.

Other features of the Lug Nut Union include:

- ❑ 3000 psi NSCWP
- ❑ Threaded and socket-weld ends
- ❑ Seating characteristics of AAR unions
- ❑ Available in sizes ⅜ - 4 NPS *(10 - 100 DN)*
- ❑ Twin lugs in sizes up to ¾ NPS *(20 DN)*
- ❑ Tri-lug design in sizes from 1 - 4 NPS *(25 - 100 DN)*
- ❑ Plated lug nut

Lug Nut Unions			
Size		A	
NPS	*DN*	*in*	*mm*
⅜	10	1.950	50
½	15	2.065	52
¾	20	2.375	60
1	25	2.580	66
1¼	32	2.950	75
1½	40	3.115	79
2	50	3.575	91
2½	65	4.200	107
3	80	4.475	114
4	100	8.500	216

Steel Fittings

Specification

Unless otherwise specified welded nipples ASTM A 53 are furnished on orders for steel nipples in standard and extra strong sizes ⅛ - 8 NPS. *(6 - 200 DN)*

Welded steel nipples (A 53 Type F or Type E) are available in standard and extra strong sizes ⅛ - 8 NPS *(6 - 200 DN)*, right hand threads, black or galvanized.

Seamless steel pressure tube nipples (ASTM A 106 Grade B) are available in standard and extra strong sizes ⅛ - 8 NPS *(6 - 200 DN)* with right h and threads, black only.

S***eamless steel pressure tube:*** seamless red brass nipples (ASTM B 43).

Right and left steel nipples are available in standard weight sizes ¼ - 2 NPS *(8 - 50 DN)*, in 4" *(102mm)* length only, black only. (Prices on application).

Nipples are available from stock in ⅛ - 8 NPS *(6 - 200 DN)* diameter, close to 12 NPS *(300 DN)* in length. Sizes 13 - 24 NPS *(325 - 600 DN)* (Prices on application).

Steel pipe nipples meet ASTM A733 and Federal Specification WWN 351.

Identification

Where possible, each seamless pipe nipple is identified with the following:

- ❑ A trade mark
- ❑ Seamless designation “SMLS”
- ❑ Pipe schedule STD, XS/XH, SCH 160 and XXS/XXH
- ❑ Material designation A106 B
- ❑ Heat number for traceablity

Steel Pipe Nipples ASTM A733

standard, Black: Figure 339
standard, Galvanized: Figure 343
Extra Strong, Black or Galvanized: Figure 338

Close

Short or Long

Locknut Nipple standard: Figure 341

Locknut nipples are available in standard weight sizes 1½ - 4 NPS *(40 - 100 DN)* diameter, in 8" *(203mm)* lengths, black or galvanized, and threaded on one end only in NPSL straight pipe thread. Total thread length is 6" *(152mm)* (plain end reamed).

Tank Nipple standard: Figure 341-A

Tank nipples are available in standard weight sizes ¼ - 3 NPS *(8 - 80 DN)* in 6" *(152mm)* length only, black or galvanized. They have NPT thread on one end, and NPT thread running into NPSL thread on the other . (Total length: 4" *(102mm)*).

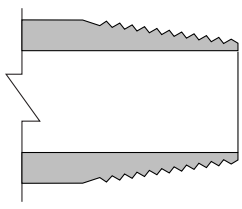
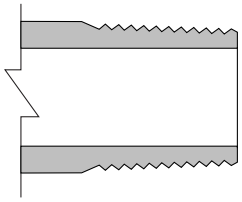
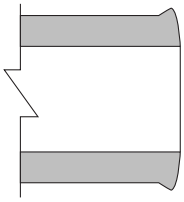
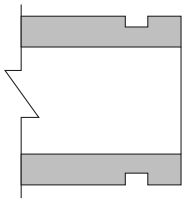
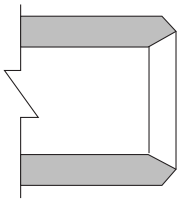
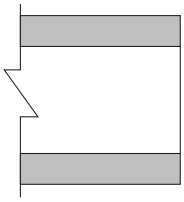
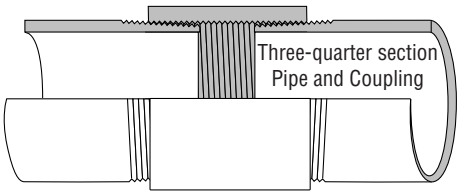
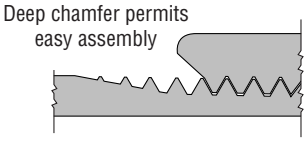
End Finishes	
Standard End Finish	**Special End Finishes**
Tapered Pipe Thread (NPT) Furnished unless special finish requested. 	 **Straight Pipe Thread**  **Roller Cut** Furnished when specified on order. (Not deburred.)  **Grooved**  **Reamed and Chamfered** End square cut and bevelled on O.D. at 35° ±10° to axis. Inside burrs removed.  **Square Cut** End square cut to central axis. All burrs removed. (Special Pricing)

Figure 336





Size		Outside Diameter (Coupling)		Length				Threads		Weight/100				Carton Quantity (Full Coupling)	
				Full		Half				Full		Half			
NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg	lbs	kg	Full	Half
⅛	6	.563	14	13/16	22	11/32	9	27	686	3.0	1.4	1.25	0.57	100	100
¼	8	.719	18	1 3/16	30	17/32	13	18	457	7.25	3.3	3.25	1.5	100	100
⅜	10	.875	22	1 3/16	30	17/32	13	18	457	9.5	4.3	4.25	1.9	100	100
½	15	1.063	27	1 9/16	40	22/32	17	14	356	17.5	7.9	8.0	3.6	100	100
¾	20	1.313	33	1 5/8	41	¾	19	14	356	26	12	12	5.4	50	100
1	25	1.576	40	2	51	15/16	24	11½	292	42	19	20	9.1	30	75
1¼	32	1.900	48	2 1/16	52	31/32	25	11½	292	50	23	23.5	11	25	100
1½	40	2.200	56	2 1/16	52	31/32	25	11½	292	67	30	31.5	14	25	75
2	50	2.750	70	2⅛	54	1	25	11½	292	103	47	48.5	22	20	50
2½	65	3.250	83	3⅛	79	1½	38	8	203	216	98	103.5	47	–	–
3	80	4.000	102	3¼	83	1 9/16	40	8	203	347	157	167	76	–	–
3½	90	4.625	117	3⅜	86	1⅝	41	8	203	519	235	254	115	–	–
4	100	5.000	127	3½	89	1 11/16	43	8	203	488	221	235	107	–	–
5	125	6.296	160	3¾	95	1¾	44	8	203	875	397	420	191	–	–
6	150	7.390	188	4	102	1⅞	48	8	203	1188	539	550	249	–	–

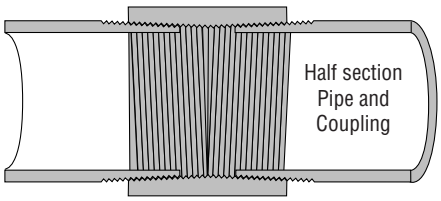
- ❑ Manufactured in accordance with ASTM specification A865.
- ❑ Merchant couplings in sizes ⅛ NPS *(6 DN)* through 2 NPS *(50 DN)* are normally supplied straight tapped. Sizes 2½ NPS *(65 DN)* and larger are taper tapped.
- ❑ Taper tapped standard merchant couplings in sizes ⅛ NPS *(6 DN)* through 2 NPS *(50 DN)* are available upon request.
- ❑ API line pipe couplings are used in all sizes over 6 NPS*(150 DN)*.
- ❑ Couplings from ⅛ NPS *(6 DN)* through 2 NPS *(50 DN)* are dipped in rust preventative.
- ❑ Couplings 2½ NPS *(65 DN)* and larger are phosphated.
- ❑ Galvanized full couplings are also available.

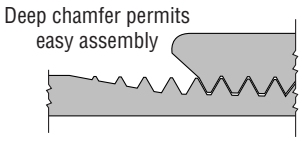
Note

- ❑ Half couplings are chamfered on one end and squared on the other.

Standard Steel Merchant Couplings
Right & Left Steel Couplings

Figure 346



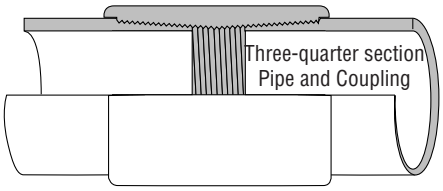


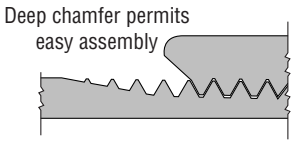
Size		Outside Diameter of Coupling		Length		Weight/100	
NPS	*DN*	*in*	*mm*	*in*	*mm*	*lbs*	*kg*
⅛	6	.563	14	13⁄16	22	3.0	1.4
¼	8	.719	18	1 3⁄16	30	7.25	3.3
⅜	10	.875	22	1 3⁄16	30	9.5	4.3
½	15	1.063	27	1 9⁄16	40	17.5	7.9
¾	20	1.313	33	1 5⁄8	41	26	12
1	25	1.576	40	2	51	42	19
1¼	32	1.900	48	2 1⁄16	52	50	23
1½	40	2.200	56	2 1⁄16	52	67	30
2	50	2.750	70	2 1⁄8	54	103	47
2½	65	3.250	83	3 1⁄8	79	216	98
3	80	4.000	102	3 1⁄4	83	347	157

Note

- The left hand threaded end of all right and left couplings is knurled for identification. All sizes of right and left couplings are taper tapped ¾" per foot *(62.5mm per meter)* on the diameter and all are dipped in rust preventative.

Figure 337





Size		Outside Diameter of Coupling		Length				Weight/100						Carton Quantity	
				Full		Half		Recessed		Non-Recessed					
										Full		Half		Full	Half
NPS	*DN*	*in*	*mm*	*in*	*mm*	*in*	*mm*	*lbs*	*kg*	*lbs*	*kg*	*lbs*	*kg*		
⅛	6	.563	14	1 1/16	27	15/32	12	4.0	1.8	4.0	1.8	2.0	0.91	100	100
¼	8	.719	18	1 5/8	41	¾	19	9.5	41	10.5	4.8	5.0	2.3	100	100
⅜	10	.875	22	1 5/8	41	¾	19	13	5.9	14.3	6.5	6.5	2.9	100	100
½	15	1.063	27	2 1/8	54	1	25	24	11	26	12	12.3	5.6	50	100
¾	20	1.313	33	2 1/8	54	1	25	35	16	38	17	17	7.7	50	100
1	25	1.576	40	2 5/8	67	1 1/4	32	51	23	82	37	38.5	17	25	50
1 1/4	32	2.054	52	2 3/4	70	1 5/16	33	101	46	108	49	50	23	25	70
1 1/2	40	2.200	56	2 3/4	70	1 5/16	33	88	40	98	44	49	22	20	55
2	50	2.875	73	2 7/8	73	1 3/8	35	184	83	195	88	95	43	15	35
2 1/2	65	3.375	86	4 1/8	105	2	51	327	148	363	165	175	79	–	–
3	80	4.000	102	4 1/4	108	2 1/16	52	425	193	469	213	230	104	–	–
3 1/2	90	4.625	117	4 3/8	111	2 1/8	54	581	264	653	296	319	145	–	–
4	100	5.200	132	4 1/2	114	2 3/16	56	787	357	859	390	391	177	–	–
5	125	6.296	160	4 5/8	117	2 1/4	57	1000	454	1097	498	550	249	–	–
6	150	7.390	188	4 7/8	124	2 3/8	60	1381	626	1494	678	706	320	–	–
8*	200	9.625	244	5 1/4	133	2 9/16	65	2318	1051	–	–	–	–	–	–
10*	250	11.750	298	5 3/4	146	2 13/16	73	3155	1431	–	–	–	–	–	–
12*	300	14.000	356	6 1/8	156	3	76	4927	2235	–	–	–	–	–	–

* API line pipe coupling will be provided.

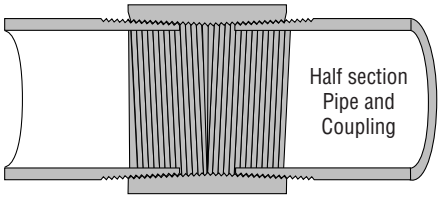
- ❑ Manufactured in accordance with ASTM Specification A865.
- ❑ All sizes are taper tapped.
- ❑ Non-recessed couplings will be supplied for sizes under 6 NPS unless otherwise specified.
- ❑ Couplings above 6 NPS *(150 DN)* will be supplied recessed only.
- ❑ Extra strong recessed couplings can be supplied in sizes under 6 NPS *(150 DN)*.
- ❑ Couplings ⅛ - 1½ NPS *(6 - 40 DN)* are dipped in rust preventative.
- ❑ Couplings 2 NPS *(50 DN)* and larger are phosphated.
- ❑ Galvanized full couplings are also available.

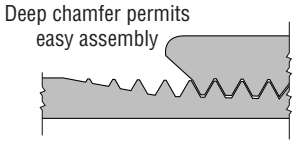
Note

- ❑ Half couplings are chamfered on one end and squared on the other.

Extra Strong (XS) Right & Left Steel Couplings

Figure 347

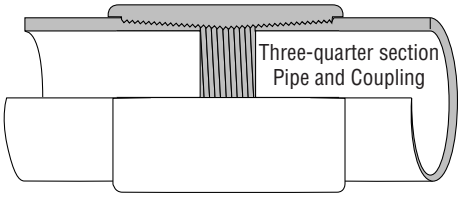




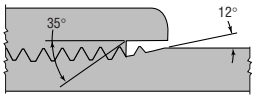
Size		Outside Diameter of Coupling		Length		Weight/100	
NPS	*DN*	*in*	*mm*	*in*	*mm*	*lbs*	*kg*
⅛	6	.563	14	1 1/16	27	4.0	1.8
¼	8	.719	18	1 5/8	41	10.5	4.8
⅜	10	.875	22	1 5/8	41	14.3	6.5
½	15	1.063	27	2 1/8	54	26	12
¾	20	1.313	33	2 1/8	54	38	17
1	25	1.660	42	2 5/8	67	82	37
1¼	32	2.054	52	2¾	70	108	49
1½	40	2.200	56	2¾	70	98	44
2	50	2.875	73	2⅞	73	195	88
2½	65	3.375	86	4⅛	105	363	165
3	80	4.000	102	4¼	108	469	213

- ❑ The left hand threaded end of all right and left couplings is knurled for identification, and all are dipped in rust preventative.
- ❑ Extra strong recessed right and left couplings are available on request.

Figure 348



Detail of recess. Pipe thread covered to last scratch (power tight)

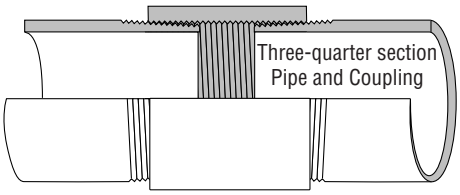


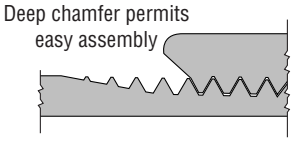
Size		Outside Diameter of Coupling		Length		Weight/100		Carton Quantity
NPS	*DN*	*in*	*mm*	*in*	*mm*	*lbs*	*kg*	
⅛	6	.563	14	1 1/16	27	4.0	1.8	100
¼	8	.719	18	1⅝	41	9.5	4.3	100
⅜	10	.875	22	1⅝	41	13	5.9	100
½	15	1.063	27	2⅛	54	24	11	50
¾	20	1.313	33	2⅛	54	35	16	50
1	25	1.576	40	2⅝	67	51	23	25
1¼	32	2.054	52	2¾	70	101	46	25
1½	40	2.200	56	2¾	70	88	40	20
2	50	2.875	73	2⅞	73	184	83	15
2½	65	3.375	86	4⅛	105	327	148	–
3	80	4.000	102	4¼	108	425	193	–
3½	90	4.625	117	4⅜	111	581	264	–
4	100	5.200	132	4½	114	787	357	–
5	125	6.296	160	4⅝	117	1000	454	–
6	150	7.390	188	4⅞	124	1381	626	–
8	200	9.625	244	5¼	133	2318	1051	–
10	250	11.750	298	5¾	146	3155	1431	–
12	300	14.000	356	6⅛	156	4927	2235	–

- ❑ These couplings are manufactured in accordance with American Petroleum Institute Specification 5L.
- ❑ All sizes are taper tapped ¾" per foot *(62.5mm per meter)* on the diameter.
- ❑ Line pipe couplings in sizes ⅛ - 1½ NPS *(6 - 40 DN)* are dipped in rust preventative.
- ❑ Couplings in sizes 2 NPS *(50 DN)* and larger are phosphated.

AAR Class 300 Steel Couplings

Figure 349





Size		Outside Diameter of Coupling		Length		Weight/100	
NPS	*DN*	*in*	*mm*	*in*	*mm*	*lbs*	*kg*
¼	8	.719	18	1⅝	41	9.0	4.1
⅜	10	.875	22	1⅝	41	14	6.4
½	15	1.063	27	2⅛	54	25	11
¾	20	1.313	33	2⅛	54	36	16
1	25	1.576	40	2⅝	67	74	34
1¼	32	2.054	52	2¾	70	108	49
1½	40	2.200	56	2¾	70	95	43
2	50	2.875	73	2⅞	73	201	91
2½	65	3.375	86	4⅛	105	353	160
3	80	4.000	102	4¼	108	461	209

- These couplings conform to the specifications of the Association of American Railroads.
- All sizes are taper tapped ¾" per foot *(62.5mm per meter)* on diameter and are dipped in rust preventative.

Merchant Steel Plugs & Bushings

Solid Square Head Plugs

Nominal Pipe Size		Minimum Overall Plug Length		Nominal Width Across Flats		Threads		Wt. per 100 Pieces		Carton Contents
NPS	DN	in	mm	in	mm	in	mm	lbs	kg	
1/8	6	.625	16	9/32	7	27	686	2.0	0.91	100
1/4	8	.687	17	3/8	10	18	457	2.0	0.91	100
3/8	10	.812	21	7/16	11	18	457	5.0	2.3	100
1/2	15	.937	24	9/16	14	14	356	10.0	4.5	100
3/4	20	1.062	27	5/8	16	14	356	18	8.2	50
1	25	1.125	29	13/16	22	11 1/2	292	35	16	25

Solid Hexagon Head Plugs

Nominal Pipe Size		Minimum Overall Plug Length		Nominal Width Across Flats		Threads		Wt. per 100 Pieces		Carton Contents
NPS	DN	in	mm	in	mm	in	mm	lbs	kg	
1/8	6	0.56	14	7/16	11	27	686	3.0	1.4	100
1/4	8	0.75	19	9/16	14	18	457	6.0	2.7	100
3/8	10	0.78	20	11/16	17	18	457	10.0	4.5	100
1/2	15	0.97	25	7/8	22	14	356	17	7.7	100
3/4	20	1.06	27	11/16	17	14	356	32	15	50

Hexagon Bushings

Nominal Pipe Size		Overall Length		Width Across Flats		Wt. per 100 Pieces		Carton Contents
NPS	DN	in	mm	in	mm	lbs	kg	
1/4 x 1/8	8 x 6	.625	16	.625	16	2.0	0.91	100
3/8 x 1/8	10 x 6	.750	19	.687	17	5.0	2.3	100
3/8 x 1/4	10 x 8	.750	19	.687	17	4.0	1.8	100
1/2 x 1/8	15 x 6	.875	22	.875	22	10.0	4.5	100
1/2 x 1/4	15 x 8	.875	22	.875	22	9.0	4.1	100
1/2 x 3/8	15 x 10	.875	22	.875	22	6.0	2.7	100
3/4 x 1/8	20 x 6	1.000	25	1.062	27	20	9.1	100
3/4 x 1/4	20 x 8	1.000	25	1.062	27	18	8.2	100
3/4 x 3/8	20 x 10	1.000	25	1.062	27	15	6.8	100
3/4 x 1/2	20 x 15	1.000	25	1.062	27	11	5.0	100
1 x 1/8	25 x 6	1.062	27	1.375	35	42	19	50
1 x 1/4	25 x 8	1.062	27	1.375	35	35	16	50
1 x 3/8	25 x 10	1.062	27	1.375	35	32	15	50
1 x 1/2	25 x 15	1.062	27	1.375	35	27	12	50
1 x 3/4	25 x 20	1.062	27	1.375	35	18	8.2	50

All sizes taper tapped 3/4" per foot *(62.5mm per meter)* on diameter.

Finish or Coating:

- ❑ Black, dipped in rust resistant;
- ❑ Galvanized, zinc plated (inside and out).
  For sizes 1 1/4 *(32 DN)* and larger, see page PF-29.

Countersunk Plugs (Hex and Square Socket)

Nominal Pipe Size		Min. Thread Length		Min. Size of Socket				Metal Thickness Bottom Countersink		Threads		Weight/100		Carton Contents
				Square		Hex								
NPS	DN	in	mm							in	mm	lbs	kg	
1/8	6	.37	9	—	—	3/16	5	.06	.06	27	686	1.00	0.45	100
1/4	8	.44	11	1/4	6	1/4	6	.09	.09	18	457	1.00	0.45	100
3/8	10	.48	12	5/16	8	5/16	8	.13	.13	18	457	4.0	1.8	100
1/2	15	.56	14	3/8	10	3/8	10	.16	.16	14	356	6.0	2.7	100
3/4	20	.63	16	1/2	8	9/16	14	.18	.18	14	356	11	5.0	50
1	25	.75	19	1/2	8	5/8	16	.20	.20	11 1/2	292	21	10	75
1 1/4	32	.80	20	3/4	19	3/4	19	.22	.22	11 1/2	292	34	15	50
1 1/2	40	.83	21	3/4	19	1	25	.24	.24	11 1/2	292	52	24	25
2	50	.88	22	7/8	22	1	25	.26	.26	11 1/2	292	85	39	20

- ❑ 1/8 NPS *(6 DN)* not available in square socket.
- ❑ All sizes taper tapped — 3/4" per foot *(62.5mm per meter)* on diameter.

Finish or Coating:

- ❑ Black, dipped in rust resistant;
- ❑ Galvanized, zinc-plated (inside and out).

Steel Fittings For Plastic Pipe

Insert Coupling

Nominal Pipe Size		Overall Length		No. of Serrations	Weight/100	
NPS	DN	in	mm		lbs	kg
½	15	3⅜	86	7	12	5.4
¾	20	3⅜	86	7	18	8.2
1	25	3⅝	92	7	35	16
1¼	32	3⅝	92	7	45	20
1½	40	4¼	108	7	67	30
2	50	4¼	108	7	80	36
2½	65	7	178	8	220	100
3	80	7	178	8	325	147
4	100	8¾	222	8	550	249

Male Adapter

Nominal Pipe Size		Length		No. of Serrations	Weight/100	
NPS	DN	in	mm		lbs	kg
½	15	3	76	7	15	6.8
¾	20	3⅛	79	7	22	10
1	25	3¼	83	7	34	15
1¼	32	3½	89	7	52	24
1½	40	4	102	7	69	31
2	50	4	102	7	94	43
2½	65	5¾	146	8	190	86
3	80	6	152	8	280	127
4	100	7¼	184	8	470	213

Well Seal Elbow

Nominal Pipe Size		Weight/100	
NPS	DN	lbs	kg
¾	20	110	50
1	25	170	77
1¼	32	290	132
1½	40	380	172

Venturi Male Adapter

Nominal Pipe Size		Length, overall, for each size							
		6 NPS		8 NPS		10 NPS		12 NPS	
		150 DN		200 DN		250 DN		300 DN	
NPS	DN	NPS	DN	NPS	DN	NPS	DN	NPS	DN
¾	20	60	1500	80	2000	100	2500	120	3000
1	25	78	1950	104	2600	130	3250	156	3900
1¼	32	102	2550	136	3400	170	4250	204	5100
1½	40	120	3000	160	4000	200	5000	240	6000
2	50	180	4500	240	6000	300	7500	360	9000

Specials — For fittings not shown - Price on Application.

Steel Hose Fittings
for Fast, Economical Hose Connections & Repairs

Combination Nipples

- ❑ Designed to easily adapt straight-end industrial hose to NPT threaded fittings on pumps, strainers, valves etc. May also be attached to other lengths of hose by means of a swivel female coupling.
- ❑ Can be used for most suction and discharge applications where moderated pressures are encountered. Plated nipples are recommended where corrosion is encountered (i.e. sea water.)
- ❑ Available in plated or unplated steel
- ❑ Nominal Pipe Sizes ½ - 6 *(15-150 DN)*

Hose Menders

- ❑ Ideal for fast, lasting, on the spot repairs of damaged hoses or for joining lengths of hose without the bulk of swivel fittings.
- ❑ Can help minimize hose wastage when used to adapt short or odd lengths of hose to meet specific needs.
- ❑ Available in plated or unplated steel
- ❑ Nominal Pipe Sizes ½ - 6 *(15-150 DN)*

Size		Length		No. of Serrations	Weight/100	
NPS	*DN*	*in*	*mm*		*lbs*	*kg*
½	15	3¼	83	7	24	11
¾	20	3 9/16	90	7	57	26
1	25	3 11/16	94	7	57	26
1¼	32	3⅞	98	7	79	36
1½	40	4 1/16	103	7	129	59
2	50	4⅜	111	7	202	92

- ❑ Precision engineered and machined to assure accurate sizing and secure attachment to industrial hose with either bolt clamps or metal brands.
- ❑ Durable, steel construction will stand up to heavy industrial and mining applications.

Notes

Malleable Iron Threaded Pipe With Unions Pressure - Temperature Ratings

Temperature		Pressure					
		Class 150		Class 250		Class 300	
(°F)	(°C)	psi	bar	psi	bar	psi	bar
-20° to 150°	-28.9° to 65.6°	300	20.7	500	34.5	600	41.4
200°	93.3	265	18.3	455	31.4	550	37.9
250°	121.1	225	15.5	405	27.9	505	34.8
300°	148.9	185	12.8	360	24.8	460	31.7
350°	176.7	150	10.3	315	21.7	415	28.6
400°	204.4	110	7.6	270	18.6	370	25.5
450°	232.2	75	5.2	225	15.5	325	22.4
500°	260.0	–	–	180	12.4	280	19.3
550°	287.8	–	–	130	9.0	230	15.9

Note: Unions with Copper or Copper Alloy seats are not intended for use where temperature exceeds 450°F

Malleable Iron Threaded Fittings Pressure - Temperature Ratings

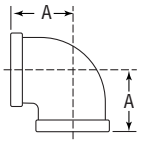
Temperature		Pressure							
		Class 150		Class 300					
				Sizes ¼" - 1" (6 - 25 mm)		Sizes 1¼" - 2" (32 - 51 mm)		Sizes 2½" - 3" (64 - 76 mm)	
(°F)	(°C)	psi	bar	psi	bar	psi	bar	psi	bar
-20° to 150°	-28.9° to 65.6°	300	20.7	2,000	137.9	1,500	103.4	1,000	68.9
200°	93.3	265	18.3	1,785	123.1	1,350	93.1	910	62.7
250°	121.1	225	15.5	1,575	108.6	1,200	82.7	825	56.9
300°	148.9	185	12.8	1,360	93.8	1,050	72.4	735	50.7
350°	176.7	150	10.3	1,150	79.3	900	62.1	650	44.8
400°	204.4	–	–	935	64.5	750	51.7	560	38.6
450°	232.2	–	–	725	50.0	600	41.4	475	32.8
500°	260.0	–	–	510	35.2	450	31.0	385	26.5
550°	287.8	–	–	300	20.7	300	20.7	300	20.7

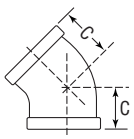
Anvil Class 150 (standard Weight) Malleable Iron Fittings conform to ASME B16.3 and Unions conform to ASME B16.39.

Anvil standard weight banded pattern fittings in this catalog, sizes ⅛ NPS to 6 NPS *(6 to 150 DN)* inclusive, are included in the "List of Inspected Fire Protection Equipment and Materials" issued by the Underwriters' Laboratories, Inc.

ALL ELBOWS & TEES ⅜" *(10 DN)* and LARGER ARE 100% GAS TESTED AT A MINIMUM OF 100 PSI. *(6.9 bar)*

Malleable Iron Class 150 (Standard)

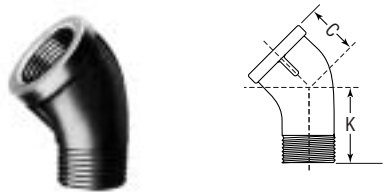
90° Elbow Figure 1101	Size		A		Weight			
					black		galv.	
	NPS	DN	in	mm	lbs	kg	lbs	kg
	⅛	6	11/16	17	0.06	0.03	0.07	0.03
	¼	8	13/16	22	0.11	0.05	0.12	0.05
	⅜	10	15/16	24	0.17	0.08	0.17	0.08
	½	15	1⅛	29	0.26	0.12	0.27	0.12
	¾	20	1 5/16	33	0.38	0.17	0.43	0.20
	1	25	1½	38	0.63	0.29	0.65	0.29
	1¼	32	1¾	44	0.96	0.44	0.94	0.43
	1½	40	1 15/16	49	1.3	0.59	1.3	0.61
	2	50	2¼	57	2.1	0.9	2.0	0.9
	2½	65	2 11/16	68	3.5	1.6	3.6	1.7
	3	80	3 1/16	78	5.2	2.4	5.3	2.4
	3½	90	3 7/16	87	7.1	3.2	7.2	3.3
	4	100	3 13/16	98	8.9	4.1	9.4	4.3
	5	125	4½	114	14	6.3	15	6.6
	6	150	5⅛	130	23	10	24	11

45° Elbow Figure 1102	Size		C		Weight			
					black		galv.	
	NPS	DN	in	mm	lbs	kg	lbs	kg
	⅛	6	11/16	17	0.06	0.03	0.08	0.04
	¼	8	¾	19	0.11	0.05	0.11	0.05
	⅜	10	13/16	22	0.16	0.07	0.18	0.08
	½	15	⅞	22	0.21	0.10	0.24	0.11
	¾	20	1	25	0.37	0.17	0.39	0.18
	1	25	1⅛	29	0.54	0.24	0.57	0.26
	1¼	32	1 5/16	33	0.86	0.39	0.87	0.39
	1½	40	1 7/16	37	1.1	0.51	1.2	0.53
	2	50	1 11/16	43	1.7	0.78	1.9	0.84
	2½	65	1 15/16	49	2.8	1.3	2.9	1.3
	3	80	2 3/16	56	4.5	2.0	4.6	2.1
	4	100	2⅝	67	7.2	3.3	7.3	3.3
	5	125	3 1/16	78	11	5.2	12	5.3
	6	150	3 7/16	87	17	7.8	18	8.0

ALL ELBOWS & TEES ⅜" *(10 DN)* and LARGER ARE 100% GAS TESTED AT A MINIMUM OF 100 PSI. *(6.9 bar)*

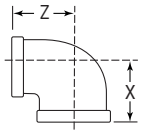
Malleable Iron Class 150 (Standard)

45° Street Elbow Figure 1104



Size		C		K		Weight			
						black		galv.	
NPS	DN	in	mm	in	mm	lbs	kg	lbs	kg
1/8	6	11/16	17	7/8	22	0.06	0.03	0.07	0.03
1/4	8	3/4	19	15/16	24	0.10	0.05	0.11	0.05
3/8	10	13/16	22	1	25	0.14	0.06	0.14	0.06
1/2	15	7/8	22	1 1/8	29	0.20	0.09	0.21	0.10
3/4	20	1	25	1 5/16	33	0.33	0.15	0.34	0.15
1	25	1 1/8	29	1 7/16	37	0.52	0.24	0.53	0.24
1 1/4	32	1 5/16	33	1 11/16	43	0.84	0.38	0.87	0.39
1 1/2	40	1 7/16	37	1 7/8	48	1.2	0.55	1.3	0.58
2	50	1 11/16	43	2 1/4	57	1.9	0.88	2.0	0.88

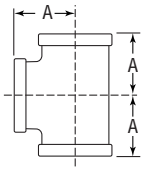
Reducing Elbow Figure 1101R



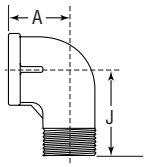
Size				X		Z		Weight			
								black		galv.	
NPS	DN	NPS	DN	in	mm	in	mm	lbs	kg	lbs	kg
1/4	8	1/8	6	3/4	19	3/4	19	0.10	0.05	0.10	0.05
3/8	10	1/8	6	13/16	22	7/8	22	0.12	0.05	0.13	0.06
		1/4	8	7/8	22	15/16	24	0.14	0.06	0.15	0.07
1/2	15	1/4	8	1	25	1	25	0.19	0.09	0.20	0.09
		3/8	10	1 1/16	27	1 1/16	27	0.21	0.10	0.22	0.10
3/4	20	1/4	8	1 1/8	29	1 1/8	29	0.26	0.12	0.28	0.13
		3/8	10	1 1/8	29	1 1/8	29	0.29	0.13	0.30	0.14
		1/2	15	1 3/16	30	1 1/4	32	0.39	0.18	0.40	0.18
1	25	3/8	10	1 3/16	30	1 1/4	32	0.41	0.19	0.42	0.19
		1/2	15	1 1/4	32	1 3/8	35	0.46	0.21	0.47	0.21
		3/4	20	1 3/8	35	1 7/16	37	0.55	0.25	0.58	0.26
1 1/4	32	1/2	15	1 3/8	35	1 9/16	40	0.62	0.28	0.64	0.29
		3/4	20	1 7/16	37	1 5/8	41	0.71	0.32	0.73	0.33
		1	25	1 9/16	40	1 11/16	43	0.86	0.39	0.90	0.41
1 1/2	40	3/4	20	1 1/2	38	1 3/4	44	0.83	0.38	0.85	0.39
		1	25	1 5/8	41	1 13/16	47	1.00	0.45	1.1	0.48
		1 1/4	32	1 13/16	47	1 7/8	48	1.2	0.53	1.2	0.54
2	50	3/4	20	1 5/8	41	2	51	1.3	0.59	1.3	0.60
		1	25	1 3/4	44	2	51	1.4	0.61	1.5	0.66
		1 1/4	32	1 7/8	48	2 1/8	54	1.5	0.69	1.6	0.70
		1 1/2	40	2	51	2 1/8	54	1.8	0.79	1.8	0.81
2 1/2	65	1 1/2	40	2 3/16	56	2 1/2	64	2.3	1.1	2.5	1.2
		2	50	2 7/16	62	2 5/8	67	3.0	1.4	3.0	1.4
3	80	2	50	2 9/16	65	2 15/16	75	3.8	1.7	3.9	1.8
		2 1/2	65	2 13/16	73	3	76	4.0	1.8	4.0	1.8
4	100	3	80	3 5/16	84	3 5/8	92	7.9	3.6	8.0	3.6

ALL ELBOWS & TEES 3/8" *(10 DN)* and LARGER ARE 100% GAS TESTED AT A MINIMUM OF 100 PSI. *(6.9 bar)*

Malleable Iron Class 150 (Standard)

Straight Tee Figure 1105	Size		A		Weight			
					black		galv.	
	NPS	DN	in	mm	lbs	kg	lbs	kg
	⅛	6	11/16	17	0.09	0.04	0.10	0.05
	¼	8	13/16	22	0.15	0.07	0.16	0.07
	⅜	10	15/16	24	0.23	0.10	0.24	0.11
	½	15	1⅛	29	0.36	0.16	0.37	0.17
	¾	20	1 5/16	33	0.56	0.25	0.58	0.26
	1	25	1½	38	0.90	0.41	0.92	0.42
	1¼	32	1¾	44	1.3	0.59	1.4	0.61
	1½	40	1 15/16	49	1.7	0.78	1.8	0.81
	2	50	2¼	57	2.5	1.1	2.8	1.3
	2½	65	2 11/16	68	4.9	2.2	5.0	2.3
	3	80	3 1/16	78	7.1	3.2	7.3	3.3
	3½	90	3 7/16	87	9.0*	4.1	9.4*	4.3
	4	100	3 13/16	98	11	5.1	12	5.6
	5	125	4½	114	19	8.8	20	8.8
	6	150	5⅛	130	26	12	30	14

*P.O.A.

90° Street Elbow Straight: Figure 1103 Reducing: Figure 1103R	Size		A		J		Weight			
							black		galv.	
	NPS	DN	in	mm	in	mm	lbs	kg	lbs	kg
	⅛	6	11/16	17	1	25	0.06	0.03	0.06	0.03
	¼	8	13/16	22	1 3/16	30	0.11	0.05	0.12	0.05
	⅜	10	15/16	24	1 7/16	37	0.17	0.08	0.18	0.08
	½	15	1⅛	29	1⅝	41	0.24	0.11	0.26	0.12
	¾	20	1 5/16	33	1⅞	48	0.41	0.19	0.42	0.19
	1	25	1½	38	2⅛	54	0.62	0.28	0.64	0.29
	1¼	32	1¾	44	2 7/16	62	1.1	0.50	1.1	0.52
	1½	40	1 15/16	49	2 11/16	68	1.4	0.65	1.6	0.70
	2	50	2¼	57	3¼	83	2.9	1.3	2.7	1.2
	2½	65	2 11/16	68	3⅞	98	4.0	1.8	4.0	1.8
	3	80	3 1/16	78	4½	114	6.1	2.7	6.3	2.8
	4	100	3 13/16	98	5 11/16	144	9.9	4.5	11	5.0
	½ x ⅜	15 x 10	1 1/16	27	1 9/16	40	0.23	0.10	0.25	0.11
	¾ x ½	20 x 15	1 3/16	30	1¾	44	0.32	0.15	0.36	0.16
	1 x ¾	25 x 20	1⅜	35	2 1/16	52	0.54	0.24	0.56	0.25
	1¼ x 1	32 x 25	1 9/16	40	2 5/16	59	0.86	0.39	0.89	0.40
	1¼ x ¾	32 x 20	1 7/16	37	2¼	57	0.75*	0.34	0.77*	0.35
	1½ x 1¼	40 x 32	1 13/16	47	2 9/16	65	1.2	0.54	1.3	0.59
	1½ x 1	40 x 25	1⅝	41	2½	64	1.1*	0.49	1.1*	0.50
First size denotes female end	2 x 1½	50 x 40	2	51	2 15/16	75	1.9	0.84	1.9	0.85

Note: See page PF-57 for pressure-temperature ratings.

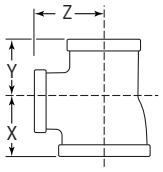
*P.O.A.

ALL ELBOWS & TEES ⅜" *(10 DN)* and LARGER ARE 100% GAS TESTED AT A MINIMUM OF 100 PSI. *(6.9 bar)*

Malleable Iron Class 150 (Standard)

ANVIL INTERNATIONAL, INC.

Reducing Tee Figure 1105R



ALL ELBOWS & TEES 3/8" and LARGER ARE 100% GAS TESTED AT A MINIMUM OF 100 PSI.

Size						X		Y		Z		Wt. black		Wt. galv.	
NPS	DN	NPS	DN	NPS	DN	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
1/8	6	1/8	6	1/4	8	3/4	19	3/4	19	3/4	19	0.12	0.05	0.14	0.06
1/4	8	1/4	8	1/8	6	3/4	19	3/4	19	3/4	19	0.13	0.06	0.14	0.06
				3/8	10	15/16	24	15/16	24	7/8	22	0.19	0.09	0.20	0.09
3/8	10	1/4	8	1/4	8	7/8	22	13/16	22	15/16	24	0.19	0.09	0.20	0.09
				3/8	10	15/16	24	15/16	24	15/16	24	0.21	0.10	0.22	0.10
				1/2	15	1 1/8	29	1	25	1 1/8	29	0.29	0.13	0.29	0.13
		3/8	10	1/4	8	7/8	22	7/8	22	15/16	24	0.21	0.10	0.22	0.10
				1/2	15	1 1/16	27	1 1/16	27	1 1/16	27	0.26	0.12	0.29	0.13
1/2	15	1/4	8	1/2	15	1 1/8	29	15/16	24	1 1/8	29	0.30	0.14	0.31	0.14
		3/8	10	3/8	10	1 1/16	27	1	25	1 1/16	27	0.28	0.13	0.29	0.13
		1/2	15	1/4	8	1	25	1	25	1	25	0.27	0.12	0.29	0.13
				3/8	10	1 1/16	27	1 1/16	27	1 1/16	27	0.30	0.14	0.32	0.15
				3/4	20	1 1/4	32	1 1/4	32	1 3/16	30	0.43	0.20	0.45	0.20
				1	25	1 3/8	35	1 3/8	35	1 1/4	32	0.55	0.25	0.57	0.26
3/4	20	1/4	8	3/4	20	1 5/16	33	1 1/8	29	1 5/16	33	0.45	0.20	0.46	0.21
		3/8	10	3/8	10	1 1/8	29	15/16	24	1 1/8	29	0.36	0.16	–	–
				3/4	20	1 5/16	33	1 1/8	29	1 5/16	33	0.46	0.21	0.48	0.22
		1/2	15	1/2	15	1 3/16	30	1 1/8	29	1 1/4	32	0.43	0.20	0.47	0.21
				3/4	20	1 5/16	33	1 1/4	32	1 5/16	33	0.51	0.23	0.51	0.23
		3/4	20	1/4	8	1 1/16	27	1 1/16	27	1 1/8	29	0.38	0.17	0.40	0.18
				3/8	10	1 1/8	29	1 1/8	29	1 1/8	29	0.42	0.19	0.46	0.21
				1/2	15	1 3/16	22	1 3/16	30	1 1/4	32	0.46	0.21	0.49	0.22
				1	25	1 7/16	37	1 7/16	37	1 3/8	35	0.62	0.28	0.66	0.30
				1 1/4	32	1 5/8	41	1 5/8	41	1 7/16	37	0.90	0.41	0.93	0.42
1	25	1/4	8	1	25	1 1/2	38	1 5/16	33	1 1/2	38	0.69	0.31	0.71	0.32
		1/2	15	1/2	15	1 1/4	32	1 1/8	29	1 3/8	35	0.55	0.25	0.55	0.25
				3/4	20	1 3/8	35	1 1/4	32	1 7/16	37	0.56	0.25	0.62	0.28
				1	25	1 1/2	38	1 3/8	35	1 1/2	38	0.76	0.34	0.73	0.33
		3/4	20	1/2	15	1 1/4	32	1 3/16	30	1 3/8	35	0.59	0.27	0.62	0.28
				3/4	20	1 3/8	35	1 5/16	33	1 7/16	37	0.73	0.33	0.75	0.34
				1	25	1 1/2	38	1 7/16	37	1 1/2	38	0.78	0.35	0.81	0.37
		1	25	1/4	8	1 1/8	29	1 1/8	29	1 1/4	44	0.55	0.25	0.55	0.25
				3/8	10	1 3/16	30	1 3/16	30	1 1/4	32	0.60	0.27	0.63	0.29
				1/2	15	1 1/4	32	1 1/4	32	1 3/8	35	0.70	0.32	0.74	0.34
				3/4	20	1 3/8	35	1 3/8	35	1 7/16	37	0.82	0.37	0.84	0.38
				1 1/4	32	1 11/16	43	1 11/16	43	1 9/16	40	0.92	0.42	0.97	0.44
				1 1/2	40	1 13/16	47	1 13/16	46	1 5/8	41	1.2	0.54	1.2	0.56
				2	50	2	51	2	51	1 3/4	44	1.6	0.74	1.6	0.74

Note: See page PF-57 for pressure-temperature ratings.

Malleable Iron Class 150 (Standard)

Size						X		Y		Z		Wt.			
												black		galv.	
NPS	DN	NPS	DN	NPS	DN	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
1¼	32	½	15	1	25	1 9/16	40	1 3/8	35	1 11/16	43	0.87	0.39	0.94	0.43
				1¼	32	1 3/4	44	1 9/16	40	1 3/4	44	1.0	0.47	1.1	0.49
		¾	20	¾	20	1 7/16	37	1 5/16	33	1 5/8	41	0.86	0.39	0.86	0.39
				1	25	1 9/16	40	1 7/16	37	1 11/16	43	0.96	0.44	0.88	0.40
				1¼	32	1 3/4	44	1 5/8	41	1 3/4	44	1.1	0.49	1.1	0.50
		1	25	½	15	1 3/8	35	1¼	32	1 9/16	40	0.76	0.34	0.79	0.36
				¾	20	1 7/16	37	1 3/8	35	1 5/8	41	0.87	0.39	0.92	0.42
				1	25	1 9/16	40	1½	38	1 11/16	43	1.1	0.50	1.1	0.51
				1¼	32	1 3/4	44	1 11/16	43	1 3/4	44	1.1	0.51	1.2	0.54
		1¼	32	⅜	10	1¼	32	1¼	32	1 7/16	37	0.86	0.39	0.89	0.40
				½	15	1 3/8	35	1 3/8	35	1 9/16	40	0.98	0.44	0.98	0.44
				¾	20	1 7/16	37	1 7/16	37	1 5/8	41	1.1	0.48	1.1	0.50
				1	25	1 9/16	40	1 9/16	40	1 11/16	43	1.2	0.54	1.2	0.55
				1½	40	1 7/8	48	1 7/8	48	1 13/16	47	1.5	0.66	1.4	0.64
				2	50	2 1/8	54	2 1/8	54	1 7/8	48	1.7	0.77	1.8	0.83
1½	40	½	15	1½	40	1 15/16	49	1 11/16	43	1 15/16	49	1.4	0.61	1.4	0.64
		¾	20	1½	40	1 15/16	49	1 3/4	44	1 15/16	49	1.4	0.64	1.6	0.71
				¾	20	1½	38	1 5/16	33	1 3/4	44	1.00	0.45	1.0	0.47
		1	25	1½	40	1 15/16	49	1 13/16	47	1 15/16	49	1.5	0.68	1.5	0.70
				1¼	32	1 13/16	47	1 11/16	43	1 7/8	48	1.3	0.59	1.4	0.65
				1	25	1 5/8	41	1½	38	1 13/16	47	1.1	0.52	1.2	0.54
		1¼	32	½	15	1 7/16	37	1 3/8	35	1 11/16	43	1.0	0.47	1.1	0.50
				¾	20	1½	38	1 7/16	37	1 3/4	44	1.1	0.49	1.1	0.50
				1	25	1 5/8	41	1 9/16	40	1 13/16	47	1.3	0.57	1.3	0.58
				1¼	32	1 13/16	47	1 3/4	44	1 7/8	48	1.5	0.69	1.4	0.64
				1½	40	1 15/16	49	1 7/8	48	1 15/16	49	1.5	0.68	1.6	0.70
		1½	40	½	15	1 7/16	37	1 7/16	37	1 11/16	43	1.2	0.54	1.3	0.57
				¾	20	1½	38	1½	38	1 3/4	44	1.3	0.59	1.4	0.64
				1	25	1 5/8	41	1 5/8	41	1 13/16	47	1.4	0.65	1.5	0.68
				1¼	32	1 13/16	47	1 13/16	47	1 7/8	48	1.5	0.66	1.5	0.67
				2	50	2 3/16	56	2 3/16	56	2	51	1.9	0.84	2.0	0.9
2	50	½	15	2	50	2¼	57	1 7/8	48	2¼	57	2.1	1.0	2.3	1.0
		¾	20	2	50	2¼	57	1 15/16	49	2¼	57	2.0	0.91	2.0	0.89
		1	25	2	50	2¼	57	2	51	2¼	57	2.1	1.0	2.3	1.0
		1¼	32	1¼	32	1 7/8	48	1 3/4	44	2 1/8	54	1.7	0.78	1.8	0.81
				1½	40	2	51	1 7/8	48	2 3/16	56	1.9	0.84	2.0	0.91
				2	50	2¼	57	2 1/8	54	2¼	57	2.2	1.0	2.3	1.0
		1½	40	1	25	1 3/4	44	1 5/8	41	2	51	1.6	0.72	1.6	0.73
				1¼	32	1 7/8	48	1 13/16	47	2 1/8	54	1.8	0.80	1.8	0.83
				1½	40	2	51	1 15/16	49	2 3/16	56	2.0	0.88	2.0	0.88
				2	50	2¼	57	2 3/16	56	2¼	57	2.2	1.0	2.4	1.1
		2	50	½	15	1½	38	1½	38	1 7/8	48	1.6	0.75	1.7	0.77
				¾	20	1 5/8	41	1 5/8	41	2	51	1.9	0.85	1.9	0.86
				1	25	1 3/4	44	1 3/4	44	2	51	1.8	0.81	2.0	0.91
				1¼	32	1 7/8	48	1 7/8	48	2 1/8	54	2.4	1.1	2.5	1.2
				1½	40	2	51	2	51	2 3/16	56	2.5	1.2	2.6	1.2
				2½	65	2 5/8	67	2 5/8	67	2 3/8	60	3.5	1.6	3.6	1.6

Note: See page PF-57 for pressure-temperature ratings.

ALL ELBOWS & TEES ⅜" *(10 DN)* and LARGER ARE 100% GAS TESTED AT A MINIMUM OF 100 PSI. *(6.9 bar)*

Malleable Iron Class 150 (Standard)

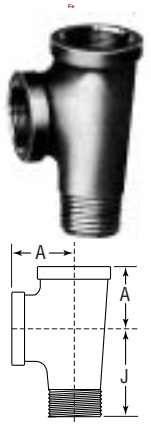
Size						X		Y		Z		Wt.			
												black		galv.	
NPS	DN	NPS	DN	NPS	DN	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
2½	65	1½	40	2	50	2 3/8	60	2 3/16	56	2 5/8	67	3.4	1.6	3.5	1.6
				2½	65	2 11/16	68	2½	64	2 11/16	68	3.8	1.7	3.8	1.7
		2	50	2	50	2 3/8	60	2¼	57	2 5/8	67	3.3	1.5	3.3	1.5
				2½	65	2 11/16	68	2 5/8	67	2 11/16	68	3.6	1.7	4.1	1.9
		2½	65	¾	20	1¾	44	1¾	44	2 5/16	59	2.8	1.3	2.8	1.3
				1	25	1 7/8	48	1 7/8	48	2⅜	60	2.9	1.3	3.0	1.4
				1¼	32	2 1/16	52	2 1/16	52	2 7/16	62	3.3	1.5	3.5	1.6
				1½	40	2 3/16	56	2 3/16	56	2½	64	3.5	1.6	3.6	1.6
				2	50	2⅜	60	2⅜	60	2 5/8	67	3.6	1.7	3.8	1.7
				3	80	3	76	3	76	2 13/16	73	5.8	2.6	6.0	2.7
3	80	2	50	2	50	2½	64	2¼	57	2 7/8	73	4.1	1.9	4.3	2.0
				3	80	3⅛	79	2 7/8	73	3⅛	79	6.1	2.8	6.5	3.0
		2½	65	2	50	2½	64	2⅜	60	2 7/8	73	4.8	2.2	4.8	2.2
				2½	65	2 13/16	73	2 11/16	68	3	76	5.8	2.6	5.9	2.7
		3	80	¾	20	1 7/8	48	1 7/8	48	2 5/8	67	4.0	1.8	4.2	1.9
				1	25	2	51	2	51	2 5/8	67	4.2	1.9	4.4	2.0
				1¼	32	2 3/16	56	2 3/16	56	2¾	70	4.7	2.1	4.7	2.1
				1½	40	2 5/16	59	2 5/16	59	2 13/16	73	5.1	2.3	5.3	2.4
				2	50	2½	64	2½	64	2 7/8	73	5.8	2.6	5.8	2.6
				2½	65	2 13/16	73	2 13/16	73	3	76	6.1	2.8	6.2	2.8
4	100	3	80	4	100	3 13/16	98	3 5/8	92	3 13/16	98	12	5.4	11	5.0
		4	100	2	50	2¾	70	2¾	70	3 7/16	87	8.4	3.8	8.8	4.0
				2½	65	3 1/16	78	3 1/16	78	3½	89	9.8	4.4	9.3	4.2
				3	80	3 5/16	84	3 5/16	84	3 5/8	92	11	5.0	11	5.1

Note: See page PF-57 for pressure-temperature ratings.

ALL ELBOWS & TEES ⅜" *(10 DN)* and LARGER ARE 100% GAS TESTED AT A MINIMUM OF 100 PSI. *(6.9 bar)*

Malleable Iron Class 150 (Standard)

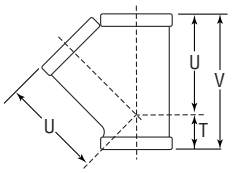
Street or Service Tee
Straight: Figure 1106
Reducing: Figure 1106R



Size		A		J		Weight			
						black		galv.	
NPS	DN	in	mm	in	mm	lbs	kg	lbs	kg
¼	8	1 3/16	30	1 3/16	30	0.15	0.07	0.16	0.07
⅜	10	1 5/16	33	1 7/16	37	0.24	0.11	0.26	0.12
½	15	1⅛	29	1⅝	41	0.34	0.15	0.34	0.15
¾	20	1 5/16	33	1⅞	48	0.54	0.24	0.63	0.29
1	25	1½	38	2⅛	54	0.96	0.44	0.99	0.45
1¼	32	1¾	44	2 7/16	62	1.4	0.63	1.5	0.68
1½	40	1 15/16	49	2 11/16	68	1.9	0.88	2.0	0.91
2	50	2¼	57	3¼	83	3.2	1.4	3.2	1.5

Size female run x male run x outlet		Run A		Run J		Outlet A		Weight black	
NPS	DN	in	mm	in	mm	in	mm	lbs	kg
1¼ x 1 x 1¼	32 x 25 x 32	1¾	44	2 5/16	59	1¾	44	1.3	0.60

45° Y-branch or Lateral
Figure 1108



Size		T		U		V		Weight black		Weight galv.	
NPS	DN	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
⅜	10	½	13	1 7/16	37	1 15/16	49	0.27	0.12	0.29	0.13
½	15	⅝	16	1 11/16	43	2 5/16	59	0.37	0.17	0.39	0.18
¾	20	¾	19	2 1/16	52	2 13/16	73	0.62	0.28	0.65	0.29
1	25	⅞	22	2 7/16	62	3 5/16	84	0.86	0.39	0.93	0.42
1¼	32	1	25	2 15/16	75	3 15/16	100	1.6	0.74	1.6	0.73
1½	40	1⅛	29	3¼	83	4⅜	111	2.0	0.91	2.1	0.9
2	50	1¼	32	3 15/16	100	5 3/16	132	3.0	1.4	3.3	1.5
2½	65	1½	38	4¾	121	6¼	159	5.9	2.7	6.1	2.7
3	80	1 11/16	43	5 9/16	141	7¼	184	9.3	4.2	9.4	4.3
4	100	2	51	7	178	9	229	16	7.1	16	7.2

ALL ELBOWS & TEES ⅜" *(10 DN)* and LARGER ARE 100% GAS TESTED AT A MINIMUM OF 100 PSI. *(6.9 bar)*

Note: See page PF-57 for pressure temperature ratings.

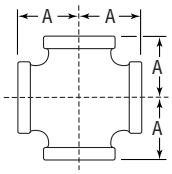
Floor Flange
Figure 1190

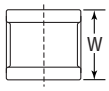
Size		Dia. of Flange		Diameter of Bolt Circle		No. of Holes	Dia. of Holes		Weight black		Weight galv.	
NPS	DN	in	mm	in	mm		in	mm	lbs	kg	lbs	kg
¼ ◊	8 ◊	2 3/16	56	1⅞	48	4	¼	6	0.27	0.12	0.43	0.20
⅜ ◊	10 ◊	3	76	2	51	4	¼	6	0.33	0.15	0.48	0.22
½	15	3½	89	2½	64	4	¼	6	0.56	0.25	0.60	0.27
¾	20	3½	89	2½	64	4	¼	6	0.60	0.27	0.58	0.26
1	25	4	102	3	76	4	¼	6	0.85	0.39	0.88	0.40
1¼	32	4	102	3	76	4	¼	6	0.90	0.41	0.90	0.41
1½	40	4½	114	3½	89	4	5/16	8	1.2	0.54	1.3	0.57
2	50	5½	140	4¼	108	4	5/16	8	2.0	0.9	2.0	0.9

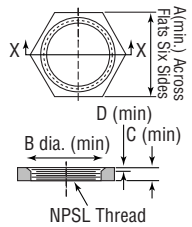
◊ Cast Iron

Malleable Iron Class 150 (Standard)

ANVIL INTERNATIONAL, INC.

Cross Fig: 1107	Size		A		Weight			
					black		galv.	
	NPS	DN	in	mm	lbs	kg	lbs	kg
	1/8	6	11/16	17	0.12	0.05	0.13	0.06
	1/4	8	13/16	22	0.18	0.08	0.19	0.09
	3/8	10	15/16	24	0.27	0.12	0.27	0.12
	1/2	15	1 1/8	29	0.41	0.19	0.43	0.20
	3/4	20	1 5/16	33	0.69	0.31	0.68	0.31
	1	25	1 1/2	38	1.1	0.51	1.1	0.52
	1 1/4	32	1 3/4	44	1.4	0.65	1.6	0.71
	1 1/2	40	1 15/16	49	2.0	0.90	2.0	0.9
	2	50	2 1/4	57	3.3	1.5	3.3	1.5
	2 1/2	65	2 11/16	68	5.9	2.7	5.8	2.6
	3	80	3 1/16	78	7.9	3.6	8.1	3.7
	4	100	3 13/16	98	14	6.1	14	6.3

Coupling Right Hand Figure 1121	Size		W		Weight			
					black		galv.	
	NPS	DN	in	mm	lbs	kg	lbs	kg
	1/8	6	15/16	24	0.06	0.03	0.06	0.03
	1/4	8	1 1/16	27	0.09	0.04	0.09	0.04
	3/8	10	1 3/16	30	0.13	0.06	0.13	0.06
	1/2	15	1 5/16	33	0.20	0.09	0.21	0.10
	3/4	20	1 1/2	38	0.29	0.13	0.31	0.14
	1	25	1 11/16	43	0.48	0.22	0.49	0.22
	1 1/4	32	1 15/16	49	0.74	0.34	0.76	0.34
	1 1/2	40	2 1/8	54	1.00	0.45	1.00	0.45
	2	50	2 1/2	64	1.5	0.66	1.6	0.70
	2 1/2	65	2 7/8	73	2.4	1.1	2.5	1.1
	3	80	3 3/16	81	3.3	1.5	3.4	1.5
	4	100	3 11/16	94	5.7	2.6	5.7	2.6

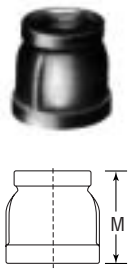
Hex Locknut Figure 1134	Size		Minimum Dimensions								Weight			
			A		B		C		D		black		galv.	
	NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
 For nominal sizes larger than 2" *(50 DN)* see cast iron standard.	•1/8	•6	.690	18	.500	13	.190	5	.040	1	0.04	0.02	0.04	0.02
	•1/4	•8	.840	21	.660	17	.250	6	.060	2	0.02	0.01	0.03	0.01
	3/8	10	1.000	25	.770	20	.280	7	.060	2	0.04	0.02	0.04	0.02
	1/2	15	1.180	30	.970	25	.310	8	.060	2	0.06	0.03	0.06	0.03
	3/4	20	1.430	36	1.230	31	.340	9	.060	2	0.12	0.05	0.13	0.06
	1	25	1.750	44	1.500	38	.380	10	.060	2	0.14	0.06	0.16	0.07
	1 1/4	32	2.100	53	1.860	47	.420	11	.060	2	0.21	0.10	0.19	0.09
	1 1/2	40	2.350	60	2.120	54	.470	12	.060	2	0.24	0.11	0.25	0.11
	2	50	2.880	73	2.630	67	.530	13	.090	2	0.40	0.18	0.47	0.21

• 1/8 & 1/4 NPS *(6 & 8 DN)* are Made in Steel

Note: See page PF-57 for pressure temperature ratings.

Malleable Iron Class 150 (Standard)

Reducer Figure 1125



Size				M		Weight			
						black		galv.	
NPS	DN	NPS	DN	in	mm	lbs	kg	lbs	kg
¼	8	⅛	6	1	25	0.07	0.03	0.08	0.04
⅜	10	⅛	6	1⅛	29	0.11	0.05	0.13	0.06
		¼	8			0.11	0.05	0.12	0.05
½	15	⅛	6	1¼	32	0.14	0.06	0.15	0.07
		¼	8			0.15	0.07	0.16	0.07
		⅜	10			0.16	0.07	0.18	0.08
¾	20	⅛	6	1 7⁄16	37	0.24	0.11	0.25	0.11
		¼	8			0.22	0.10	0.23	0.10
		⅜	10			0.25	0.11	0.26	0.12
		½	15			0.26	0.12	0.28	0.13
1	25	¼	8	1 11⁄16	43	0.35	0.16	0.37	0.17
		⅜	10			0.35	0.16	0.38	0.17
		½	15			0.39	0.18	0.41	0.19
		¾	20			0.42	0.19	0.44	0.20
1¼	32	½	15	2 1⁄16	52	0.60	0.27	0.63	0.29
		¾	20			0.64	0.29	0.65	0.29
		1	25			0.68	0.31	0.70	0.32
1½	40	½	15	2 5⁄16	59	0.77	0.35	0.80	0.36
		¾	20			0.88	0.40	0.90	0.41
		1	25			0.90	0.41	0.91	0.41
		1¼	32			0.90	0.41	0.93	0.42
2	50	½	15	2 13⁄16	73	1.1	0.52	1.2	0.54
		¾	20			1.3	0.61	1.3	0.61
		1	25			1.4	0.64	1.4	0.64
		1¼	32			1.5	0.69	1.5	0.69
		1½	40			1.6	0.70	1.6	0.71
2½	65	1	25	3¼	83	2.1	1.0	2.2	1.0
		1¼	32			2.1	0.9	2.1	1.0
		1½	40			2.1	0.9	2.1	1.0
		2	50			2.5	1.1	2.6	1.2
3	80	1	25	3 11⁄16	94	3.2	1.4	3.2	1.5
		1¼	32			3.2	1.5	3.0	1.4
		1½	40			3.3	1.5	3.5	1.6
		2	50			3.2	1.5	3.4	1.5
		2½	65			3.3	1.5	3.4	1.5
3½	90	2	50	4	102	4.3	2.0	4.4	2.0
		2½	65			4.7*	2.1	4.8*	2.2
		3	80			5.0	2.3	5.2	2.3
4	100	1½	40	4⅜	111	4.9	2.2	5.0	2.3
		2	50			5.1	2.3	5.0	2.3
		2½	65			5.9	2.7	6.0	2.7
		3	80			6.5	3.0	6.6	3.0
		3½	90			6.3	2.9	6.5	2.9
5	125	4	100	4 9⁄16	116	9.6	4.3	9.2	4.2
6	150	4	100	4 13⁄16	124	10	4.7	11	4.9

*POA

Return Bends Open Pattern, R.H. Fig: 1119

Size		Center to Center		Weight			
				black		galv.	
NPS	DN	in	mm	lbs	kg	lbs	kg
½	15	1½	38	0.36*	0.16	–	–
¾	20	2	51	0.64*	0.29	–	–
1	25	2½	64	1.1	0.50	1.1	0.52
1¼	32	3	76	1.8*	0.80	–	–
1½	40	3½	89	2.5*	1.2	–	–
2	50	4	102	4.0	1.8	4.3	1.9

*POA

Cap Figure 1124

Size		Weight			
		black		galv.	
NPS	DN	lbs	kg	lbs	kg
•⅛	•6	0.03	0.01	0.04	0.02
•¼	•8	0.06	0.03	0.06	0.03
•⅜	•10	0.09	0.04	0.10	0.05
½	15	0.12	0.05	0.12	0.05
¾	20	0.22	0.10	0.20	0.09
1	25	0.38	0.17	0.38	0.17
1¼	32	0.58	0.26	0.61	0.28
1½	40	0.73	0.33	0.75	0.34
2	50	1.1	0.51	1.2	0.54
2½	65	1.8	0.79	1.8	0.82
3	80	2.6	1.2	2.8	1.2
3½	90	3.2	1.4	3.2	1.5
4	100	4.5	2.1	4.6	2.1
5	125	6.4	2.9	6.9	3.1
6	150	10.0	4.5	10.0	4.5

• ⅛, ¼ & ⅜ *(6, 8 & 10 DN)* are Made in Steel

Note: See page PF-57 for pressure-temperature ratings.

Malleable Iron Plain Fittings
NOTE: Not to be used for pressure service

Waste Nut Figure 1133	Size		Weight			
			black		galv.	
	NPS	DN	lbs	kg	lbs	kg
	½	15	0.12*	0.05	0.12*	0.05
	¾	20	0.15*	0.07	0.15*	0.07

*POA

Extension Piece Figure 1137	Size		A		Weight			
					black		galv.	
	NPS	DN	in	mm	lbs	kg	lbs	kg
	⅜	10	1 5/16	33	0.10*	0.05	0.10*	0.05
	½	15	1⅝	41	0.14	0.06	0.16	0.07
	¾	20	1 15/16	49	0.26	0.12	0.26	0.12
	1	25	2 1/16	52	0.42	0.19	0.41	0.19

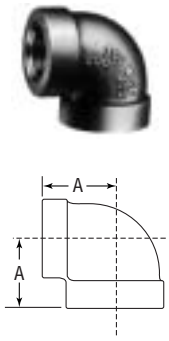
*POA

Malleable Iron Fittings Class 300 (XS/XH)

Anvil Class 300 XS/XH fittings conform to American National Standard ASME B16.3 and are in compliance with the requirements of the AAR (1994 AAR Manual of Standards and Practices)

Anvil extra heavy banded pattern fittings in this catalog, sizes ¼ to 4 NPS *(8 to 100 DN)*, are included in the "List of Inspected Fire Protection Equipment and Materials" issued by Underwriters' Laboratories.

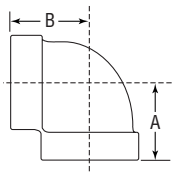
90° Elbow Straight Figure 1161



Size		A		Weight			
				black		galv.	
NPS	DN	in	mm	lbs	kg	lbs	kg
¼	8	15/16	24	0.20	0.09	0.20	0.09
⅜	10	1 1/16	27	0.29	0.13	0.32	0.15
½	15	1¼	32	0.47	0.21	0.48	0.22
¾	20	1 7/16	37	0.66	0.30	0.68	0.31
1	25	1⅝	41	1.2	0.53	1.2	0.54
1¼	32	1 15/16	49	1.9	0.85	1.9	0.88
1½	40	2⅛	54	2.5	1.1	2.6	1.2
2	50	2½	64	4.2	1.9	4.3	1.9
2½	65	2 15/16	75	5.3	2.4	5.9	2.7
3	80	3⅜	86	9.7	4.4	9.8*	4.4*
4	100	4½	114	16	7.3	16	7.4

*POA

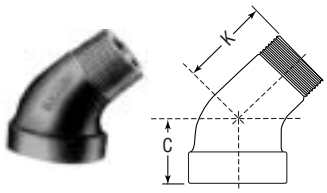
90° Reducing Elbow Figure 1161R



Size		A		B		Weight			
						black		galv.	
NPS	DN	in	mm	in	mm	lbs	kg	lbs	kg
⅜ x ¼	10 x 8	1	25	1	25	0.26*	0.12*	–	–
½ x ⅜	15 x 10	1 3/16	30	1 3/16	30	0.41*	0.19*	–	–
¾ x ½	20 x 15	1 5/16	33	1⅜	35	0.62*	0.28*	0.67*	0.30*
1 x ½	25 x 15	1 7/16	37	1½	38	0.87*	0.39	0.89	0.40
1 x ¾	25 x 20	1½	38	1 9/16	40	1.00	0.45	–	–
1¼ x ¾	32 x 20	1⅝	41	1¾	44	1.4	0.64	–	–
1¼ x 1	32 x 25	1¾	44	1 13/16	47	1.6*	0.73*	–	–
1½ x 1	40 x 25	1	25	1 13/16	47	2.0	0.91	–	–
1½ x 1¼	40 x 32	2	51	2 1/16	52	2.1	1.0	–	–
2 x 1¼	50 x 32	2⅛	54	2 5/16	59	3.1	1.4	–	–
2 x 1½	50 x 40	2¼	57	2⅜	60	3.3	1.5	3.3	1.5

*POA

45° Street Elbow Figure 1160



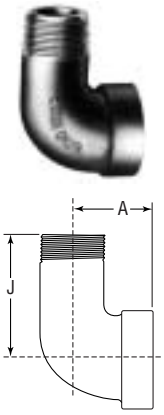
Size		C		K		Weight black	
NPS	DN	in	mm	in	mm	lbs	kg
½	15	1	25	1⅜	35	0.36	0.16
¾	20	1⅛	29	1 9/16	40	0.54	0.24
1	25	1 5/16	33	1 13/16	47	0.85	0.39
1¼	32	1½	38	2⅛	54	1.5	0.69
1½	40	1 11/16	43	2 5/16	59	2.1	0.9
2	50	2	51	2 11/16	68	3.3	1.5

Note: See page PF-57 for pressure-temperature ratings.

ALL ELBOWS & TEES ⅜" *(10 DN)* and LARGER ARE 100% GAS TESTED AT A MINIMUM OF 100 PSI. *(6.9 bar)*

Malleable Iron Fittings Class 300 (XS/XH)

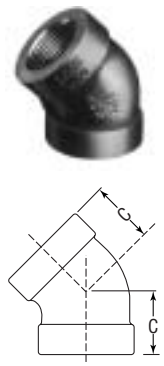
90° Street Elbow Figure 1170



Size		A		J		Weight			
						black		galv.	
NPS	DN	in	mm	in	mm	lbs	kg	lbs	kg
¼	8	15/16	24	1 7/16	37	0.17	0.08	0.18	0.08
⅜	10	1 1/16	27	1 5/8	41	0.26	0.12	0.27	0.12
½	15	1 1/4	32	2	51	0.40	0.18	0.42	0.19
¾	20	1 7/16	37	2 3/16	56	0.68	0.31	0.71	0.32
1	25	1 5/8	41	2 9/16	65	1.1	0.48	1.1	0.50
1 ¼	32	1 15/16	49	2 7/8	73	1.6	0.73	1.6	0.73
1 ½	40	2 1/8	54	3 1/8	79	2.2	1.0	2.3	1.0
2	50	2 ½	64	3 11/16	94	3.6	1.6	3.8	1.7
3	80	3 3/8	86	5 1/8	130	9.6*	4.3*	9.9*	4.5*

*POA

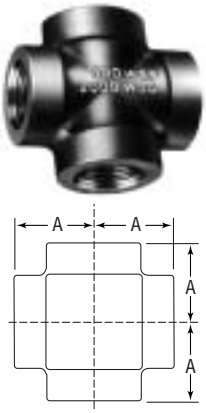
45° Elbow Figure 1162



Size		C		Weight			
				black		galv.	
NPS	DN	in	mm	lbs	kg	lbs	kg
¼	8	13/16	22	0.19	0.09	0.20	0.09
⅜	10	7/8	22	0.28	0.13	0.29	0.13
½	15	1	25	0.43	0.20	0.44	0.20
¾	20	1 1/8	29	0.66	0.30	0.68	0.31
1	25	1 5/16	33	1.00	0.45	1.0	0.46
1 ¼	32	1 ½	38	1.7	0.76	1.7	0.77
1 ½	40	1 11/16	43	2.1	1.0	2.3	1.0
2	50	2	51	3.4	1.5	3.5	1.6
2 ½	65	2 ¼	57	5.5	2.5	5.6	2.5
3	80	2 ½	64	8.1	3.7	8.5	3.9
4	100	2 13/16	73	13	6.1	14	6.3

*POA

Cross Figure 1165



Size		Center to End A		Weight			
				black		galv.	
NPS	DN	in	mm	lbs	kg	lbs	kg
¼	8	15/16	24	0.35*	0.16*	0.36*	0.16*
⅜	10	1 1/16	27	0.46*	0.21*	–	–
¾	20	1 7/16	37	1.3	0.57	1.3	0.60
1	25	1 5/8	41	1.9	0.86	–	–
1 ¼	32	1 15/16	49	3.2*	1.5*	3.3*	1.5*
1 ½	40	2 1/8	54	4.2*	1.9*	4.3*	2.0*
2	50	2 ½	64	6.4*	2.9*	6.6*	3.0*

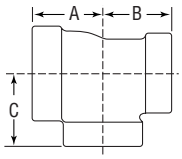
*POA

Note: See page PF-57 for pressure-temperature ratings.

ALL ELBOWS & TEES ⅜" *(10 DN)* and LARGER ARE 100% GAS TESTED AT A MINIMUM OF 100 PSI. *(6.9 bar)*

Malleable Iron Fittings – Class 300

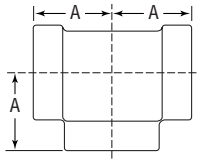
Reducing Tee
Figure 1164R



Size						Center to End						Weight (lbs)			
						A		B		C		black		galv.	
NPS	DN	NPS	DN	NPS	DN	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
⅜	10	⅜	10	¼	8	1	25	1	25	1	25	0.37	0.17	—	—
½	15	½	15	¼	8	1 1/16	27	1 1/16	27	1⅛	29	0.48*	0.22*	0.52	0.24
				⅜	10	1 3/16	30	1 3/16	30	1 3/16	30	0.61*	0.28*	—	—
				¾	20	1⅜	35	1⅜	35	1 5/16	33	0.80	0.36	—	—
¾	20	½	15	¾	20	1 7/16	37	1⅜	35	1 7/16	37	0.93	0.42	—	—
				½	15	1 5/16	33	1¼	32	1⅜	35	0.78	0.35	—	—
		¾	20	¼	8	1 3/16	30	1 3/16	30	1¼	32	0.76*	0.34*	0.80	0.36
				⅜	10	1¼	32	1¼	32	1 5/16	33	0.80	0.36	—	—
				½	15	1 5/16	33	1 5/16	33	1⅜	35	0.90	0.41	0.88	0.40
1	25	½	15	1	25	1⅝	41	1½	38	1⅝	41	1.4	0.62	—	—
		¾	20	¾	20	1½	38	1 7/16	37	1 9/16	40	1.3*	0.58*	—	—
				1	25	1⅝	41	1 9/16	40	1⅝	41	1.4	0.63	—	—
		1	25	¼	8	1¼	32	1¼	32	1⅜	35	1.1	0.49	—	—
				½	15	1 7/16	37	1 7/16	37	1½	38	1.3	0.57	1.3	0.59
				¾	20	1½	38	1½	38	1 9/16	40	1.3	0.60	1.4	0.65
1¼	32	1	25	1	25	1¾	44	1⅝	41	1 13/16	47	1.9	0.87	—	—
		1¼	32	½	15	1½	38	1½	38	1 11/16	43	1.7	0.77	1.9	0.85
				¾	20	1⅝	41	1⅝	41	1¾	44	1.9	0.86	2.0	0.90
				1	25	1¾	44	1¾	44	1 13/16	47	2.1	1.0	2.1	1.0
1½	40	1½	40	½	15	1⅝	41	1⅝	41	1 13/16	47	2.3	1.0	2.3	1.1
				¾	20	1 11/16	43	1 11/16	43	1⅞	48	2.5	1.1	2.5	1.1
				1	25	1 13/16	47	1 13/16	47	2	51	2.6	1.2	2.7	1.2
				1¼	32	2	51	2	51	2 1/16	52	3.0*	1.4*	3.1*	1.4*
2	50	1½	40	2	50	2½	64	2⅜	60	2½	64	4.5	2.0	–	–
		2	50	½	15	1¾	44	1¾	44	2 1/16	52	3.4	1.5	3.5	1.6
				¾	20	1 13/16	47	1 13/16	47	2⅛	54	3.6	1.6	3.6	1.6
				1	25	2	51	2	51	2¼	57	4.0	1.8	4.0	1.8
				1¼	32	2⅛	54	2⅛	54	2 5/16	59	4.2	1.9	4.4	2.0
				1½	40	2¼	57	2¼	57	2⅜	60	4.6	2.1	4.7	2.1
2½	65	2½	65	1½	40	2 7/16	62	2 7/16	62	2⅝	67	6.3*	2.9*	6.6*	3.0*
				2	50	2 11/16	68	2 11/16	68	2¾	70	7.6*	3.4*	7.5*	3.4*
3	80	3	80	2	2	2 13/16	73	2 13/16	73	3⅛	79	9.6	4.4	10	4.6

*POA

Straight Tee
Figure 1164

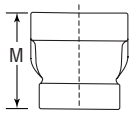


Size		Center to End A		Weight			
				black		galv.	
NPS	DN	in	mm	lbs	kg	lbs	kg
¼	8	1 5/16	33	0.27	0.12	0.30	0.14
⅜	10	1 1/16	27	0.42	0.19	0.43	0.20
½	15	1¼	32	0.65	0.29	0.69	0.31
¾	20	1 7/16	37	1.1	0.49	1.1	0.50
1	25	1⅝	41	1.6	0.74	1.6	0.75
1¼	32	1 15/16	49	2.5	1.1	2.6	1.2
1½	40	2⅛	54	3.4	1.5	3.5	1.6
2	50	2½	64	5.2	2.4	5.4	2.4
2½	65	2 5/16	75	8.0	3.6	8.0	3.6
3	80	3⅜	86	13	5.7	13	5.8
4	100	4½	114	24	11	24	11

Note: See page PF-57 for pressure-temperature ratings.

ALL ELBOWS & TEES ⅜" *(10 DN)* and LARGER ARE 100% GAS TESTED AT A MINIMUM OF 100 PSI. *(6.9 bar)*

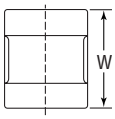
Reducer Figure 1167



Size				End to End M		Weight			
						black		galv.	
NPS	DN	NPS	DN	in	mm	lbs	kg	lbs	kg
⅜	10	¼	8	1 7/16	37	0.21	0.10	0.22	0.10
½	15	¼	8	1 11/16	43	0.31	0.14	0.31	0.14
		⅜	10			0.34	0.15	0.36	0.16
¾	20	¼	8	1¾	44	0.46*	0.21*	0.49*	0.22*
		⅜	10			0.47*	0.21*	0.48*	0.22*
		½	15			0.50	0.23	0.52	0.24
1	25	¼	8	2	51	0.66	0.30	0.68	0.31
		⅜	10			0.71	0.32	0.73	0.33
		½	15			0.71	0.32	0.75	0.34
		¾	20			0.79	0.36	0.82	0.37
1¼	32	½	15	2⅜	60	1.1	0.51	1.1	0.52
		¾	20			1.2	0.53	1.2*	0.55*
		1	25			1.3	0.59	1.3*	0.57*
1½	40	½	15	2 11/16	68	1.5	0.68	1.5	0.70
		¾	20			1.6	0.71	1.6	0.73
		1	25			1.6	0.73	1.7	0.77
		1¼	32			1.8	0.82	1.9	0.84
2	50	½	15	3 3/16	81	2.4*	1.1*	—	—
		¾	20			2.4	1.1	2.5	1.1
		1	25			2.5	1.1	2.6	1.2
		1¼	32			2.7	1.2	2.7	1.2
		1½	40			2.7	1.2	2.9	1.3
2½	65	1½	40	3 11/16	94	4.1	1.9	4.3	2.0
		2	50			4.3	2.0	4.5	2.1
3	8	1½	40	4 1/16	103	5.8*	2.6*	5.9*	2.7*
		2	50			5.8	2.6	5.5	2.5
		2½	65			6.5	2.9	6.6	3.0
4	100	2	50	4⅜	111	9.5	4.3	9.6	4.4
		3	80			10.0	4.5	11	4.8

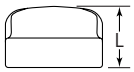
*POA

Coupling Figure 1166



Size		End to End W		Weight			
				black		galv.	
NPS	DN	in	mm	lbs	kg	bs	kg
¼	8	1⅜	35	0.17	0.08	0.18	0.08
⅜	10	1⅝	41	0.26	0.12	0.27	0.12
½	15	1⅞	48	0.42	0.19	0.43	0.20
¾	20	2⅛	54	0.65	0.29	0.68	0.31
1	25	2⅜	60	0.99	0.45	1.0	0.47
1¼	32	2⅞	73	1.6	0.74	1.7	0.76
1½	40	2⅞	73	2.0	0.9	2.1	0.9
2	50	3⅝	92	3.2	1.5	3.3	1.5
2½	65	4⅛	105	5.5	2.5	5.7	2.6
3	80	4⅛	105	7.3	3.3	7.4	3.4

Cap Figure 1163



Size		Height L		Weight			
				black		galv.	
NPS	DN	in	mm	lbs	kg	lbs	kg
¼	8	25/32	20	0.10	0.05	0.11	0.05
⅜	10	13/16	22	0.15	0.07	0.15	0.07
½	15	1	25	0.23	0.10	0.24	0.11
¾	20	1 1/16	27	0.35	0.16	0.36	0.16
1	25	1¼	32	0.58	0.26	0.58	0.26
1¼	32	1⅜	35	0.94	0.43	0.95	0.43
1½	40	1 7/16	37	1.2	0.54	1.3	0.60
2	50	1 11/16	43	1.9	0.88	2.0	0.89
2½	65	2 1/16	52	3.3	1.5	3.4	1.5
3	80	2 3/16	56	4.7	2.1	4.8	2.2

Note: See page PF-57 for pressure-temperature ratings.

Malleable Iron Unions – Class 150; 250; 300

Copper or Copper Alloy to Iron								
Unions	Size		End to End		Weight			
					black		galv.	
	NPS	DN	in	mm	lbs	kg	lbs	kg
Class 150 Union ■Figure 463 150 lb. wsp 300 lb. wog non-shock † UL Listed	⅛	6	1 5/16	33	0.15	0.07	0.15	0.07
	†¼	†8	1 13/16	47	0.46	0.21	0.47	0.21
	†⅜	†10	1 13/16	47	0.42	0.19	0.43	0.20
	†½	†15	1 15/16	49	0.44	0.20	0.45	0.20
	†¾	†20	2 1/16	52	0.60	0.27	0.63	0.29
	†¾ x ½	†20 x 15	2 1/16	52	0.55	0.25	0.59	0.27
	†1	†25	2 7/16	62	0.91	0.41	0.94	0.43
	†1¼	†32	2⅝	67	1.5	0.66	1.5	0.66
	†1½	†40	2¾	70	1.7	0.77	1.7	0.78
	†2	†50	2 15/16	75	2.5	1.1	2.4	1.1
	2½	65	3⅝	92	3.6	1.6	3.7	1.7
	3	80	3¾	95	5.0	2.2	5.0	2.3
Class 250 Union, ■Figure 554 250lb. wsp 500lb. wog non-shock † UL LIsted	⅛	6	1 5/16	33	0.14*	0.06*	0.14*	0.06*
	†¼	†8	1 13/16	47	0.46	0.21	0.47	0.21
	†⅜	†10	1 13/16	47	0.42	0.19	0.43	0.20
	†½	†15	2 1/16	52	0.53	0.24	0.54	0.24
	† ¾	†20	2¼	57	0.80	0.36	0.82	0.37
	†1	†25	2 9/16	65	1.3	0.58	1.3	0.59
	†1¼	†32	2¾	70	1.6	0.74	1.6	0.75
	†1½	†40	3	76	2.1	0.9	2.1	1.0
	†2	†50	3⅜	86	3.5	1.6	3.5	1.6
	2½	65	3⅞	98	5.3	2.4	5.4	2.4
	3	80	4¼	108	7.6	3.4	7.8	3.5
	4	100	4⅞	124	18	7.9	18	8.1
Class 300 union, ■Figure 459 300lb. wsp 600lb wog non-shock	⅛	6	1 5/16	33	0.14	0.06	0.14	0.06
	¼	8	1 13/16	47	0.47	0.21	0.48	0.22
	⅜	10	1 13/16	47	0.43	0.20	0.44	0.20
	½	15	2 1/16	52	0.53	0.24	0.55	0.25
	¾	20	2¼	57	0.80	0.36	0.82	0.37
	1	25	2 9/16	65	1.3	0.58	1.3	0.59
	1¼	32	2¾	70	1.6	0.74	1.7	0.78
	1½	40	3	76	2.1	1.0	2.2	1.0
	2	50	3⅜	86	3.5	1.6	3.5	1.6
	2½	65	3⅞	98	5.0	2.3	5.5	2.5
	3	80	4¼	108	7.7	3.5	7.7	3.5
	4	100	4⅞	124	18	8.0	18	8.1
Class 300 union male and female ■Figure 551 300lb. wsp 600lb wog non-shock	½	15	3	76	0.62	0.28	—	—
	¾	20	3 3/16	81	0.92	0.42	—	—
	1	25	3⅝	92	1.5	0.70	—	—
	1½	40	4¼	108	2.6	1.2	2.7	1.2
	2	50	4⅝	117	2.4	1.1	—	—

*POA

■ Pressure & Temperature rates shown on page PF-57

❑ Anvil Malleable Iron Unions conform to ASME B 16.39 and are in compliance with the requirements of the AAR (1994 AAR Manual of standards and Practices).

❑ Dimensions conform to ASME B 16.39 for Class 150, 250 & 300 Unions.

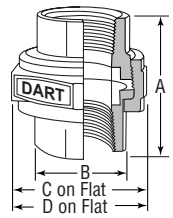
Malleable Iron Unions – Class 150; 250; 300

Copper or Copper Alloy to Iron								
Class 300 90° Elbow Female Union Figure 552 300 lb. wsp	Size		Center to End				Weight black	
			Elbow		Union			
	NPS	DN	in	mm	in	mm	lbs	kg
	⅜	10	1 1/16	27	2 1/16	52	0.51*	0.23*
	½	15	1¼	32	2 5/16	59	0.79*	0.36*
	¾	20	1 7/16	37	2¾	70	1.2*	0.56*
	1	25	1⅝	41	3	76	1.9*	0.85*

*POA

All Iron Union Class 300 Figure J-3	Size		End to End		Weight			
					black		galv.	
	NPS	DN	in	mm	lbs	kg	lbs	kg
	⅛	6	1½	38	0.18*	0.08*	0.19	0.09
	¼	8	1⅝	41	0.28*	0.13*	0.29	0.13
	⅜	10	1 13/16	47	0.36*	0.16*	0.37*	0.17*
	½	15	2⅛	54	0.56*	0.25*	0.57	0.26
	¾	20	2 7/16	62	0.84*	0.38*	0.87	0.39
	1	25	2¾	70	1.3*	0.58*	1.3	0.59
	1¼	32	3	76	2.0*	0.9*	2.1	1.0
	1½	40	3 3/16	81	2.7*	1.2*	2.8	1.3
	2	50	3½	89	4.2*	1.9*	4.3	1.9
	2½	65	3 11/16	94	6.0*	2.7*	6.2	2.8
	3	80	3 15/16	100	7.6*	3.4*	7.8	3.6

*POA / all black POA

Dart Union Bronze to Bronze Seat Union Figure 0832	Size		A		B		C		D		Weight			
											black		galv.	
	NPS	DN	in	mm	in	mm	in	mm	in	mm	lns	kg	lbs	kg
	⅜	10	1¾	44	15/16	24	1½	38	1¾	44	0.41	0.19	0.43	0.20
	½	15	2⅛	54	1⅛	29	1 3/16	30	2	51	0.58	0.26	0.61	0.28
	¾	20	2 5/16	59	1⅜	35	2 3/16	56	2½	64	0.82	0.37	0.86	0.39
	1	25	2⅝	67	1 11/16	43	2 9/16	65	3	76	1.3	0.59	1.4	0.62
	1¼	32	2 13/16	73	2 1/16	52	3 1/16	78	3½	89	1.9	0.87	2.0*	0.9*
	1½	40	3	76	2 3/16	56	3⅜	86	4	102	2.3	1.1	2.4	1.1
	2	50	3⅝	92	2⅞	73	4 1/16	103	4⅝	117	4.0	1.8	4.2	1.9

*POA

- ❑ Meets ASME B16.39 The standard union for most installations
  ⅜ - 2 NPS *(10 - 50 DN)* – 300 lb *(136 kg)* steam working pressure at 450°F.
  ⅜ - 2 NPS *(10 - 50 DN)* – 600 lb *(272 kg)* cold water, gas, or oil pressure - non-shock.
- ❑ Bronze Seat, on both sides of the joint. Resists corrosion.
- ❑ True bearing surfaces, unlike ordinary union seats.
- ❑ Bodies and nuts are high test air-refined malleable iron - generally superior to mild steel in most services.
- ❑ Can be repeatedly installed and removed.
- ❑ Straight way through. No cored parts to hold liquid or sediment.
- ❑ Extra heavy shoulder on swivel end and in the nut to st and pipe strains, vibration, and wrench abuse.
- ❑ Bronze Seat Ball Joint, with extra wide seating surfaces.

Notes

Cast Iron Fittings

Anvil standard and extra heavy cast iron threaded fittings are manufactured in accordance with ASME-B16.4 (except plugs and bushings, ASME B16.14). Dimensions also conform to Federal Specifications, WW-P-501(except plugs and bushings WW-P-471).

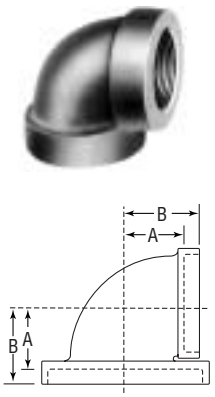
Anvil standard and extra heavy fittings in this section, sizes ¼ NPS - 12NPS *(8 - 300 DN)*, are included in the "List of Inspected Fire Protection Equipment and Materials" issued by the Underwriters' Laboratories, Inc.

Cast Iron Threaded Fittings
Pressure - Temperature Ratings

Temperature		Pressure			
		Class 125		Class 250	
(°F)	*(°C)*	psi	*bar*	psi	*bar*
-20° to 150°	-28.9 to 65.6	175	12.1	400	27.6
200°	93.3	165	11.4	370	25.5
250°	121.1	150	10.3	340	23.4
300°	148.9	140	9.7	310	21.4
350°	176.7	125	8.6	300	20.7
400°	204.4	–	–	250	17.2

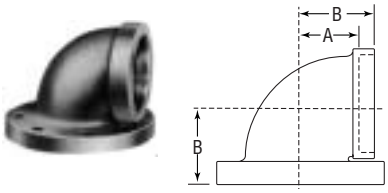
Cast Iron Threaded Fittings
Class 125, (Standard)

90° Elbow Straight Figure 351



Size		A		B		Weight			
						black		galv.	
NPS	DN	in	mm	in	mm	lbs	kg	lbs	kg
¼	8	½	13	13/16	22	0.16	0.07	0.17	0.08
⅜	10	9/16	14	15/16	24	0.25	0.11	0.26	0.12
½	15	11/16	17	1⅛	29	0.40	0.18	0.41	0.19
¾	20	13/16	22	1 5/16	33	0.60	0.27	0.61	0.28
1	25	15/16	24	1½	38	0.92	0.42	0.95	0.43
1¼	32	1⅛	29	1¾	44	1.4	0.65	1.5	0.66
1½	40	1 5/16	33	1 15/16	49	2.0	0.88	2.0	0.91
2	50	1 9/16	40	2¼	57	3.1	1.4	3.2	1.5
2½	65	1 13/16	47	2 11/16	68	4.9	2.2	5.1	2.3
3	80	2 3/16	56	3⅛	79	7.2	3.3	7.4	3.4
4	100	2 11/16	68	3 13/16	98	12	5.5	13	5.7
5	125	3 5/16	84	4½	114	21	10	—	—
6	150	3⅞	98	5⅛	130	31	14	33	15
8	200	5 3/16	132	6 9/16	167	65	29	67	30

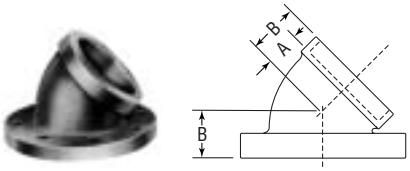
90° Elbow Flanged and Threaded Figure 371



Size		A		B		Weight black	
NPS	DN	in	mm	in	mm	lbs	kg
2½	65	1 13/16	47	2 11/16	68	10	4.6
3	80	2 3/16	56	3⅛	79	13	6.0
4	100	2 11/16	68	3 13/16	98	22	10
5	125	3 5/16	84	4½	114	28	13
6	150	3⅞	98	5⅛	130	41	18
8	200	5 3/16	132	6 9/16	167	80	36

•Nominal Pipe Sizes of 4" *(100 DN)* and larger have two holes tapped for stud or tap bolts.

45° Elbow Flanged and Threaded Figure 372



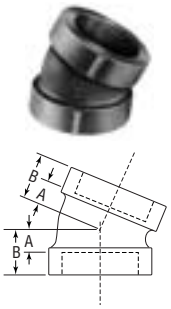
Size		A		B		Weight black	
NPS	DN	in	mm	in	mm	lbs	kg
4	100	1 9/16	40	2⅝	67	20	9.0
6	150	2 3/16	56	3 7/16	87	35	16
8	200	2⅞	73	4¼	108	64	29

Note: See page PF-75 for pressure-temperature ratings.

Cast Iron Threaded Fittings
Class 125, (Standard)

ANVIL INTERNATIONAL, INC.

22 ½° Elbow
Figure 356A

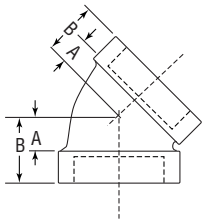


Size		A		B		Weight black	
NPS	DN	in	mm	in	mm	lbs	kg
¾	20	⅜	10	⅞	22	0.52	0.24
1	25	7⁄16	11	1	25	0.80	0.36
1¼	32	½	13	1⅛	29	1.4	0.64
1½	40	⅝	16	1¼	32	1.6	0.74
2	50	¾	19	1 7⁄16	37	2.5	1.1
2½	65	¾	19	1⅝	41	4.0	1.8

Galvanized Not Steel

Note: See page PF-75 for pressure-temperature ratings.

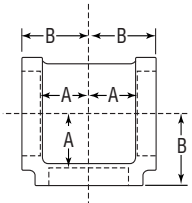
45° Elbow
Figure 356



* 1 NPS *(25 DN)* size available in 1 NPS x ½ NPS *(25 x 15 DN)* reducing size, black or galvanized.

Size		A		B		Weight black		Weight galv.	
NPS	Dn	in	mm	in	mm	lbs	kg	lbs	kg
¼	8	7⁄16	11	¾	19	0.16	0.07	0.17	0.08
⅜	10	7⁄16	11	13⁄16	22	0.23	0.10	—	—
½	15	7⁄16	11	⅞	22	0.37	0.17	0.38	0.17
¾	20	½	13	1	25	0.55	0.25	0.56	0.25
1*	25	9⁄16	14	1⅛	29	0.83	0.38	0.88	0.40
1¼	32	⅝	16	1¼	32	1.3	0.60	1.4	0.62
1½	40	13⁄16	22	1 7⁄16	37	1.8	0.81	1.8	0.83
2	50	1	25	1 11⁄16	43	2.9	1.3	3.0	1.3
2½	65	1 1⁄16	27	1 15⁄16	49	4.3	1.9	4.3	2.0
3	80	1 3⁄16	30	2 3⁄16	56	6.4	2.9	6.7	3.0
3½	90	1⅜	35	2⅜	60	8.4	3.8	—	—
4	100	1 9⁄16	40	2⅝	67	11	4.8	11	5.1
5	125	1 7⁄8	48	3 1⁄16	78	17	7.7	17	7.9
6	150	2 3⁄16	56	3 7⁄16	87	26	12	26	12
8	200	2 7⁄8	73	4¼	108	50	23	52	24

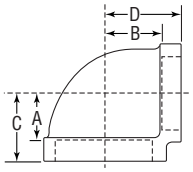
Straight Tee
Figure 358



Size		A		B		Weight black		Weight galv.	
NPS	Dn	in	mm	in	mm	lbs	kg	lbs	kg
¼	8	½	13	13⁄16	22	0.22	0.10	0.23	0.10
⅜	10	⅝	16	1	25	0.35	0.16	0.36	0.16
½	15	11⁄16	17	1⅛	29	0.56	0.25	0.58	0.26
¾	20	13⁄16	22	1 5⁄16	33	0.84	0.38	0.85	0.39
1	25	15⁄16	24	1½	38	1.3	0.57	1.3	0.59
1¼	32	1⅛	29	1¾	44	2.0	0.9	2.1	0.9
1½	40	1 5⁄16	33	1 15⁄16	49	2.7	1.2	2.7	1.2
2	50	1 9⁄16	40	2¼	57	4.2	1.9	4.3	2.0
2½	65	1 13⁄16	47	2 11⁄16	68	6.7	3.0	6.8	3.1
3	80	2 3⁄16	56	3⅛	79	10.0	4.5	10	4.6
3½	90	2 7⁄16	62	3 7⁄16	87	13	6.0	14	6.3
4	100	2 11⁄16	68	3¾	95	16	7.4	17	7.7
5	125	3 5⁄16	84	4½	114	27	12	28	13
6	150	3⅞	98	5⅛	130	41	19	41	19
8	200	5 5⁄16	132	6 9⁄16	167	79	36	81	37

Cast Iron Threaded Fittings
Class 125, (Standard)

90° Reducing Elbow - Figure 352



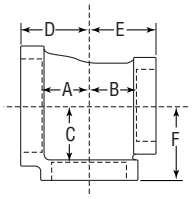
Size				A		B		C		D		Weight black	
NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg
½	15	¼	8	5/8	16	3/4	19	1 1/16	27	1 1/16	27	0.40	0.18
		3/8	10	5/8	16	11/16	17	1 1/16	27	1 1/16	27	0.34	0.15
¾	20	½	15	11/16	17	13/16	22	1 1/4	32	1 1/4	32	0.51	0.23
1	25	½	15	11/16	17	15/16	24	1 3/8	35	1 3/8	35	0.67	0.30
		¾	20	13/16	22	15/16	24	1 7/16	37	1 7/16	37	0.76	0.34
1¼	32	½	15	11/16	17	1 1/16	27	1 ½	38	1 ½	38	1.1	0.49
		¾	20	13/16	22	1 1/8	29	1 5/8	41	1 5/8	41	1.0	0.46
		1	25	15/16	24	1 1/8	29	1 11/16	43	1 11/16	43	1.2	0.55
1½	40	½	15	¾	19	1 1/4	32	1 5/8	41	1 5/8	41	1.5	0.69
		¾	20	7/8	22	1 5/16	33	1 13/16	47	1 13/16	47	1.6	0.70
		1	25	1	25	1 1/4	32	1 13/16	47	1 13/16	47	1.4	0.65
		1¼	32	1 3/16	30	1 1/4	32	1 7/8	48	1 7/8	48	1.7	0.79
2	50	½	15	1 3/16	30	1 7/16	37	1 3/8	35	1 3/8	35	2.2	1.0
		¾	20	1 5/16	33	1 ½	38	2	51	2	51	2.2	1.0
		1	25	1 1/16	27	1 7/16	37	2	51	2	51	2.1	0.9
		1¼	32	1 3/16	30	1 7/16	37	2 1/16	52	2 1/16	52	2.3	1.1
		1½	40	1 5/16	33	1 ½	38	2 1/8	54	2 1/8	54	2.6	1.2
2½	65	1	25	1	25	1 3/4	44	2 5/16	59	2 5/16	59	2.9	1.3
		1¼	32	1 3/16	30	1 3/4	44	2 3/8	60	2 3/8	60	3.4	1.5
		1½	40	1 5/16	33	1 13/16	47	2 7/16	62	2 7/16	62	3.7	1.7
		2	50	1 9/16	40	1 7/8	48	2 9/16	65	2 9/16	65	4.0	1.8
3	80	1¼	32	1 5/8	41	2 5/16	59	2 15/16	75	2 15/16	75	6.0	2.7
		1½	40	1 5/8	41	2 5/16	59	2 15/16	75	2 15/16	75	5.7	2.6
		2	50	1 5/8	41	2 1/4	57	2 15/16	75	2 15/16	75	5.7	2.6
		2½	65	1 7/8	48	2 3/16	56	3 1/16	78	3 1/16	78	6.4	2.9
3½	90	3	80	2 3/16	56	2 7/16	62	3 3/8	86	3 3/8	86	8.9	4.1
4	100	2	50	2 3/16	56	2 15/16	75	3 5/8	92	3 5/8	92	12	5.4
		2½	65	2 3/16	56	2 3/4	70	3 5/8	92	3 5/8	92	11	5.1
		3	80	2 3/16	56	2 11/16	68	3 5/8	92	3 5/8	92	11	4.8
		3½	90	2 7/16	62	2 11/16	68	3 11/16	94	3 11/16	94	12	5.4
5	125	2½	65	2 13/16	73	3 ½	89	4 3/8	111	4 3/8	111	20	9.0
		3	80	2 13/16	73	3 7/16	87	4 3/8	111	4 3/8	111	19	8.6
		4	100	2 13/16	73	3 5/16	84	4 3/8	111	4 3/8	111	16	7.5
6	150	3	80	2 5/16	59	3 13/16	98	4 13/16	124	4 13/16	124	19	8.8
		4	100	2 13/16	73	3 7/8	98	4 15/16	125	4 15/16	125	24	11
		5	125	3 3/8	86	3 13/16	98	5	127	5	127	27	12
8	200	6	150	4 3/16	106	5 1/8	130	6 3/8	162	6 3/8	162	51	23

Note: See page PF-75 for pressure-temperature ratings.

Cast Iron Threaded Fittings
Class 125, (Standard)

ANVIL INTERNATIONAL, INC.

Reducing Tee
Figure 359



Reducing Tee: Figure 359

Size						A		B		C		D		E		F		Wt. black		Wt. galv.	
NPS	Dn	NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lns	kg	lbs	kg
½	15	½	15	¼	8	11/16	17	11/16	17	13/16	22	1⅛	29	1⅛	29	1⅛	29	0.57	0.26	–	–
				⅜	10	11/16	17	11/16	17	¾	19	1⅛	29	1⅛	29	1⅛	29	0.57	0.26	–	–
				¾	20	13/16	22	13/16	22	11/16	17	1¼	32	1¼	32	13/16	22	0.68	0.31	–	–
				1	25	1	25	1	25	13/16	22	1 7/16	37	1 7/16	37	1⅜	35	1.00	0.45	–	–
¾	20	¼	8	¾	20	13/16	22	15/16	24	13/16	22	15/16	24	1¼	32	15/16	24	0.79	0.36	–	–
		½	15	½	15	11/16	17	11/16	17	13/16	22	13/16	22	1⅛	29	1¼	32	0.64	0.29	–	–
				¾	20	13/16	22	13/16	22	13/16	22	15/16	24	1¼	32	15/16	24	0.75	0.34	–	–
		¾	20	¼	8	9/16	14	9/16	14	⅞	22	11/16	17	11/16	17	13/16	22	0.62	0.28	–	–
				⅜	10	11/16	17	11/16	17	15/16	24	13/16	22	13/16	22	1¼	32	0.75	0.34	–	–
				½	15	11/16	17	11/16	17	13/16	22	13/16	22	13/16	22	1¼	32	0.76	0.34	–	–
				1	25	15/16	24	15/16	24	13/16	22	1 7/16	37	1 7/16	37	1⅜	35	0.99	0.45	–	–
1	25	¼	8	1	25	15/16	24	15/16	24	15/16	24	1½	38	1¼	32	1½	38	1.1	0.49	–	–
		½	15	½	15	11/16	17	¾	19	15/16	24	1¼	32	13/16	22	1⅜	35	0.90	0.41	–	–
				¾	20	13/16	22	13/16	22	15/16	24	1⅜	35	1¼	32	1 7/16	37	0.91	0.41	–	–
				1	25	15/16	24	15/16	24	15/16	24	1½	38	1⅜	35	1½	38	1.1	0.49	–	–
		¾	20	½	15	11/16	17	11/16	17	15/16	24	1¼	32	13/16	22	1⅜	35	0.89	0.40	–	–
				¾	20	13/16	22	13/16	22	15/16	24	1⅜	35	15/16	24	1 7/16	37	1.00	0.45	–	–
				1	25	15/16	24	15/16	24	15/16	24	1½	38	1 7/16	37	1½	38	1.1	0.51	–	–
		1	25	¼	8	11/16	17	11/16	17	1⅛	29	1⅛	29	1¼	32	1⅜	35	1.0	0.46	–	–
				½	15	11/16	17	11/16	17	15/16	24	1¼	32	1¼	32	1⅜	35	1.0	0.46	1.0	0.47
				¾	20	13/16	22	13/16	22	15/16	24	1⅜	35	1⅜	35	1 7/16	37	1.1	0.50	–	–
				1¼	32	1⅛	29	1⅛	29	15/16	24	1 11/16	43	1 11/16	43	1 9/16	40	1.5	0.68	–	–
				1½	40	1¼	32	1¼	32	1	25	1 13/16	47	1 13/16	47	1⅝	41	1.8	0.83	–	–
1¼	32	½	15	½	15	13/16	22	13/16	22	1⅛	29	1 7/16	37	15/16	24	1⅝	41	1.00	0.45	–	–
				1	25	15/16	24	15/16	24	1⅛	29	1 9/16	40	1⅜	35	1 11/16	43	1.4	0.63	–	–
				1¼	32	1⅛	29	1⅛	29	1⅛	29	1¾	44	1 9/16	40	1¾	44	1.6	0.74	–	–
		¾	20	¾	20	13/16	22	13/16	22	1⅛	29	1 7/16	37	15/16	24	1⅝	41	1.3	0.58	–	–
				1	25	15/16	24	15/16	24	1⅛	29	1 9/16	40	1 7/16	37	1 11/16	43	1.4	0.65	–	–
				1¼	32	1⅛	29	1⅛	29	1⅛	29	1¾	44	1⅝	41	1¾	44	1.7	0.78	–	–
		1	25	½	15	11/16	17	11/16	17	1⅛	29	15/16	24	1¼	32	1 9/16	40	1.3	0.58	1.3	0.59
				¾	20	13/16	22	13/16	22	1⅛	29	1 7/16	37	1⅜	35	1⅝	41	1.4	0.62	–	–
				1	25	15/16	24	15/16	24	1⅛	29	1 9/16	40	1 9/16	40	1 11/16	43	1.5	0.69	1.6	0.71
				1¼	32	1⅛	29	1⅛	29	1⅛	29	1¾	44	1 11/16	43	1¾	44	1.8	0.81	–	–
				1½	40	1¼	32	1¼	32	13/16	22	1⅞	48	1 13/16	47	1 13/16	47	2.1	0.9	–	–
				2	50	1 7/16	37	1 7/16	37	13/16	22	2 1/16	52	2	51	1⅞	48	2.7	1.2	–	–
		1¼	32	½	15	11/16	17	11/16	17	1⅛	29	15/16	24	15/16	24	1 9/16	40	1.5	0.67	–	–
				¾	20	13/16	22	13/16	22	1⅛	29	1 7/16	37	1 7/16	37	1⅝	41	1.6	0.71	–	–
				1	25	15/16	24	15/16	24	1⅛	29	1 9/16	40	1 9/16	40	1 11/16	43	1.7	0.78	–	–
				1½	40	1¼	32	1¼	32	13/16	22	1⅞	48	1⅞	48	1 13/16	47	2.3	1.0	–	–
				2	50	1 7/16	37	1 7/16	37	13/16	22	2 1/16	52	2 1/16	52	1⅞	48	2.8	1.3	–	–

See additional sizes on following page.
Note: See page PF-75 for pressure-temperature ratings.

Cast Iron Threaded Fittings
Class 125, (Standard)

Reducing Tee: Figure 359

Size						A		B		C		D		E		F		Wt. black		Wt. galv.	
NPS	Dn	NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
1½	40	½	15	1¼	32	13/16	22	1⅛	29	1¼	32	1 13/16	47	1 9/16	40	1⅞	48	1.9	0.88	–	–
				1½	40	15/16	24	1¼	32	15/16	24	1 15/16	49	1 11/16	43	1 15/16	49	2.1	1.0	–	–
		¾	20	1½	40	15/16	24	1¼	32	15/16	24	1 15/16	49	1¾	44	1 15/16	49	2.2	1.0	–	–
		1	25	½	15	13/16	22	¾	19	1¼	32	1 7/16	37	15/16	24	1 1/16	43	1.8	0.79	–	–
				¾	20	⅞	22	13/16	22	1¼	32	1½	38	1⅜	35	1¾	44	1.7	0.77	–	–
				1	25	1	25	15/16	24	1¼	32	1⅝	41	1½	38	1 13/16	47	1.7	0.78	–	–
				1¼	32	13/16	22	1⅛	29	1¼	32	1 13/16	47	1 1/16	43	1⅞	48	2.1	0.9	–	–
				1½	40	15/16	24	1¼	32	15/16	24	1 15/16	49	1 13/16	47	1 15/16	49	2.3	1.0	–	–
				2	50	1½	38	1 7/16	37	15/16	24	2⅛	54	2	51	2	51	2.9	1.3	–	–
		1¼	32	½	15	13/16	22	11/16	17	1¼	32	1 7/16	37	15/16	24	1 1/16	43	1.7	0.76	1.7	0.78
				¾	20	⅞	22	13/16	22	1¼	32	1½	38	1 7/16	37	1¾	44	1.8	0.81	–	–
				1	25	1	25	15/16	24	1¼	32	1⅝	41	1 9/16	40	1 13/16	47	2.0	0.89	2.0	0.9
				1¼	32	13/16	22	1⅛	29	1¼	32	1 13/16	47	1¾	44	1⅞	48	2.3	1.0	–	–
				1½	40	15/16	24	1¼	32	15/16	24	1 15/16	49	1⅞	48	1 15/16	49	2.5	1.1	–	–
				2	50	1½	38	1 7/16	37	15/16	24	2⅛	54	2 1/16	52	2	51	3.1	1.4	–	–
		1½	40	½	15	13/16	22	13/16	22	1¼	32	1 7/16	37	1 7/16	37	1 1/16	43	1.8	0.83	–	–
				¾	20	⅞	22	⅞	22	1¼	32	1½	38	1½	38	1¾	44	2.0	0.88	–	–
				1	25	1	25	1	25	1¼	32	1⅝	41	1⅝	41	1 13/16	47	2.1	1.0	2.2	1.0
				1¼	32	13/16	22	13/16	22	1¼	32	1 13/16	47	1 13/16	47	1⅞	48	2.4	1.1	–	–
				2	50	1½	38	1½	38	15/16	24	2⅛	54	2⅛	54	2	51	3.2	1.5	–	–
				2½	65	1 13/16	47	1 13/16	47	15/16	24	2 7/16	62	2 7/16	62	2 3/16	56	4.2	1.9	–	–
2	2	½	15	1½	40	15/16	24	1⅜	35	1½	38	2	51	1 13/16	47	2⅛	54	3.0	1.3	–	–
				2	50	1 9/16	40	1 7/16	37	1 9/16	40	2¼	57	1⅞	48	2¼	57	3.3	1.5	–	–
		¾	20	1¼	32	13/16	22	1⅛	29	1 7/16	37	1⅞	48	1¾	44	2 1/16	52	2.5	1.1	–	–
				1½	40	15/16	24	15/16	24	1½	38	2	51	1 13/16	47	2⅛	54	3.4	1.5	–	–
				2	50	1 9/16	40	1 7/16	37	1 9/16	40	2¼	57	1 15/16	49	2¼	57	3.3	1.5	–	–
		1	25	1	25	11/16	17	11/16	17	1 7/16	37	1¾	44	1⅝	41	2	51	2.7	1.2	–	–
				1¼	32	13/16	22	1⅛	29	1½	38	1⅞	48	1¾	44	2 1/16	52	2.9	1.3	–	–
				1½	40	15/16	24	1¼	32	1½	38	2	51	1 13/16	47	2⅛	54	2.9	1.3	–	–
				2	50	1 9/16	40	1 7/16	37	1 9/16	40	2¼	57	2	51	2¼	57	3.5	1.6	–	–
				2½	65	1⅞	48	1 13/16	47	1 9/16	40	2 9/16	65	2⅜	60	2 7/16	62	4.9	2.2	–	–
		1¼	32	½	15	11/16	17	1	25	1 7/16	37	1¾	44	1⅝	41	2	51	2.5	1.1	–	–
				¾	20	⅞	22	⅞	22	1 7/16	37	1 9/16	40	1½	38	1 15/16	49	2.5	1.1	–	–
				1	25	11/16	17	1	25	1 7/16	37	1¾	44	1⅝	41	2	51	2.7	1.2	–	–
				1¼	32	13/16	22	1⅛	29	1 7/16	37	1⅞	48	1¾	44	2 1/16	52	2.9	1.3	–	–
				1½	40	15/16	24	1¼	32	1½	38	2	51	1⅞	48	2⅛	54	3.1	1.4	–	–
				2	50	1 9/16	40	1 7/16	37	1 9/16	40	2¼	57	2 1/16	52	2¼	57	3.7	1.7	–	–
				2½	65	1⅞	48	1¾	44	1 9/16	40	2 9/16	65	2⅜	60	2 7/16	62	4.5	2.1	–	–
		1½	40	½	15	13/16	22	13/16	22	1 7/16	37	1½	38	1 7/16	37	1⅞	48	2.3	1.1	2.4	1.1
				¾	20	⅞	22	⅞	22	1 7/16	37	1 9/16	40	1½	38	1 15/16	49	2.5	1.1	–	–
				1	25	11/16	17	1	25	1 7/16	37	1¾	44	1⅝	41	2	51	2.7	1.2	–	–
				1¼	32	13/16	22	13/16	22	1 7/16	37	1⅞	48	1 13/16	47	2 1/16	52	3.0	1.4	–	–
				1½	40	15/16	24	15/16	24	1½	38	2	51	1 15/16	49	2⅛	54	3.2	1.5	–	–
				2	50	1 9/16	40	1½	38	1 9/16	40	2¼	57	2⅛	54	2¼	57	3.7	1.7	–	–
				2½	65	1⅞	48	1 15/16	49	1 9/16	40	2 9/16	65	2 9/16	65	2 7/16	62	5.5	2.5	–	–
		2	50	½	15	13/16	22	13/16	22	1 7/16	37	1½	38	1½	38	1⅞	48	2.7	1.2	2.8	1.3
				¾	20	⅞	22	⅞	22	1 7/16	37	1 9/16	40	1 9/16	40	1 15/16	49	2.9	1.3	–	–
				1	25	11/16	17	11/16	17	1 7/16	37	1¾	44	1¾	44	2	51	3.0	1.4	3.1	1.4
				1¼	32	13/16	22	13/16	22	1 7/16	37	1⅞	48	1⅞	48	2 1/16	52	3.4	1.5	–	–
				1½	40	15/16	24	15/16	24	1½	38	2	51	2	51	2⅛	54	3.6	1.6	3.7	1.7
				2½	65	1⅞	48	1⅞	48	1 9/16	40	2 9/16	65	2 9/16	65	2 7/16	62	5.2	2.3	5.4	2.4
				4	100	3	76	3	76	2 7/16	62	3 11/16	94	3 11/16	94	3½	89	16	7.3	–	–

See additional sizes on previous and following page. Note: See page PF-75 for pressure-temperature ratings.

Cast Iron Threaded Fittings
Class 125, (Standard)

ANVIL INTERNATIONAL, INC.

Reducing Tee: Figure 359

Size						A		B		C		D		E		F		Wt. black		Wt. galv.	
NPS	Dn	NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lns	kg	lbs	kg
2½	65	½	15	2	50	1 9/16	40	1 11/16	43	1 7/8	48	2 7/16	62	2 1/8	54	2 9/16	65	5.3	2.4	–	–
				2½	65	1 13/16	47	1 13/16	47	1 13/16	47	2 11/16	68	2 1/4	57	2 11/16	68	5.2	2.4	–	–
		¾	20	2½	65	1 13/16	47	1 3/4	44	1 13/16	47	2 11/16	68	2 1/4	57	2 11/16	68	5.1	2.3	–	–
		1	25	2	50	1 9/16	40	1 9/16	40	1 7/8	48	2 7/16	62	2 1/8	54	2 9/16	65	5.0	2.3	–	–
				2½	65	1 13/16	47	1 3/4	44	1 13/16	47	2 11/16	68	2 5/16	59	2 11/16	68	5.4	2.4	–	–
		1¼	32	1½	40	15/16	24	15/16	24	1 13/16	47	2 3/16	56	1 15/16	49	2 7/16	62	4.3	1.9	–	–
				2	50	1 9/16	40	1 1/2	38	1 7/8	48	2 7/16	62	2 1/8	54	2 9/16	65	5.0	2.2	–	–
				2½	65	1 13/16	47	1 3/4	44	1 13/16	47	2 11/16	68	2 3/8	60	2 11/16	68	5.4	2.4	–	–
		1½	40	1½	40	15/16	24	15/16	24	1 13/16	47	2 3/16	56	1 15/16	49	2 7/16	62	4.2	1.9	–	–
				2	50	1 9/16	40	1 1/2	38	1 7/8	48	2 7/16	62	2 1/8	54	2 9/16	65	4.8	2.2	–	–
				2½	65	1 13/16	47	1 13/16	47	1 13/16	47	2 11/16	68	2 7/16	62	2 11/16	68	5.8	2.6	–	–
		2	50	½	15	¾	19	13/16	22	1 3/4	44	1 11/16	43	1 1/2	38	2 3/16	56	3.6	1.6	–	–
				¾	20	7/8	22	7/8	22	1 3/4	44	1 3/4	44	1 9/16	40	2 1/4	57	3.6	1.6	–	–
				1	25	1	25	11/16	17	1 3/4	44	1 15/16	49	1 3/4	44	2 5/16	59	3.9	1.8	–	–
				1¼	32	13/16	22	13/16	22	1 3/4	44	2 1/16	52	1 7/8	48	2 3/8	60	4.3	1.9	–	–
				1½	40	15/16	24	15/16	24	1 13/16	47	2 3/16	56	2	51	2 7/16	62	4.4	2.0	–	–
				2	50	1 9/16	40	1 9/16	40	1 7/8	48	2 7/16	62	2 1/4	57	2 9/16	65	5.2	2.3	–	–
				2½	65	1 13/16	47	1 7/8	48	1 13/16	47	2 11/16	68	2 9/16	65	2 11/16	68	6.0	2.7	–	–
		2½	65	½	15	¾	19	¾	19	1 3/4	44	1 11/16	43	1 11/16	43	2 3/16	56	4.0	1.8	–	–
				¾	20	7/8	22	7/8	22	1 3/4	44	1 3/4	44	1 3/4	44	2 1/4	57	4.3	1.9	–	–
				1	25	1	25	1	25	1 3/4	44	1 15/16	49	1 15/16	49	2 5/16	59	4.5	2.0	–	–
				1¼	32	13/16	22	13/16	22	1 3/4	44	2 1/16	52	2 1/16	52	2 3/8	60	4.8	2.2	–	–
				1½	40	15/16	24	15/16	24	1 13/16	47	2 3/16	56	2 3/16	56	2 7/16	62	5.1	2.3	–	–
				2	50	1 9/16	40	1 9/16	40	1 7/8	48	2 7/16	62	2 7/16	62	2 9/16	65	5.9	2.7	6.0	2.7
				4	100	2 3/4	70	2 13/16	73	2 7/16	62	3 11/16	94	3 11/16	94	3½	89	14	6.4	–	–
3	80	½	15	3	80	2 1/8	54	2 1/4	57	2 1/8	54	3 1/8	79	2 11/16	68	3 1/8	79	7.6	3.4	–	–
		¾	20	3	80	2 1/8	54	2 1/8	54	2 1/8	54	3 1/8	79	2 11/16	68	3 1/8	79	8.3	3.7	–	–
		1	25	3	80	2 1/8	54	2 1/8	54	2 1/8	54	3 1/8	79	2 11/16	68	3 1/8	79	8.3	3.8	–	–
		1¼	32	3	80	2 1/8	54	2 1/8	54	2 1/8	54	3 1/8	79	2 13/16	73	3 1/8	79	8.5	3.8	–	–
		1½	40	2½	65	1 7/8	48	1 7/8	48	2 1/8	54	2 13/16	73	2 9/16	65	3 1/16	78	7.7	3.5	–	–
		1½	40	3	80	2 1/8	54	2 3/16	56	2 1/8	54	3 1/8	79	2 13/16	73	3 1/8	79	8.1	3.7	–	–
		2	50	1½	40	1 3/8	35	1 1/2	38	2 3/16	56	2 5/16	59	2 3/16	56	2 13/16	73	6.8	3.1	–	–
				2	50	1 9/16	40	1 9/16	40	2 3/16	56	2 9/16	65	2 1/4	57	2 15/16	75	7.3	3.3	–	–
				2½	65	1 7/8	48	1 15/16	49	2 1/8	54	2 13/16	73	2 9/16	65	3 1/16	78	7.1	3.2	–	–
				3	80	2 1/8	54	2 3/16	56	2 1/8	54	3 1/8	79	2 15/16	75	3 1/8	79	8.8	4.0	–	–
		2½	65	1	25	1	25	15/16	24	2 1/8	54	2 1/16	52	1 15/16	49	2 11/16	68	5.5	2.5	–	–
				1¼	32	1 1/4	32	13/16	22	2 1/8	54	2 3/16	56	2 1/16	52	2 3/4	70	5.9	2.7	–	–
				1½	40	1 3/8	35	15/16	24	2 3/16	56	2 5/16	59	2 3/16	56	2 13/16	73	6.2	2.8	6.3	2.9
				2	50	1 9/16	40	1 1/2	38	2 3/16	56	2 9/16	65	2 7/16	62	2 15/16	75	6.8	3.1	–	–
				2½	65	1 7/8	48	1 13/16	47	2 1/8	54	2 13/16	73	2 11/16	68	3 1/16	78	7.7	3.5	–	–
				3	80	2 1/8	54	2 1/8	54	2 1/8	54	3 1/8	79	3 1/16	78	3 1/8	79	9.1	4.1	–	–
		3	80	½	15	15/16	24	15/16	24	2 3/16	56	1 7/8	48	1 7/8	48	2 5/8	67	6.1	2.8	6.2	2.8
				¾	20	15/16	24	15/16	24	2 1/8	54	1 7/8	48	1 7/8	48	2 5/8	67	6.1	2.7	6.2	2.8
				1	25	1	25	1	25	2 1/8	54	2 1/16	52	2 1/16	52	2 11/16	68	6.3	2.8	6.5	3.0
				1¼	32	1 1/4	32	1 1/4	32	2 1/8	54	2 3/16	56	2 3/16	56	2 3/4	70	6.8	3.1	–	–
				1½	40	1 3/8	35	1 3/8	35	2 3/16	56	2 5/16	59	2 5/16	59	2 15/16	75	7.1	3.2	7.3	3.3
				2	50	1 9/16	40	1 9/16	40	2 3/16	56	2 9/16	65	2 9/16	65	2 7/8	73	7.8	3.5	7.8	3.6
				2½	65	1 7/8	48	1 7/8	48	2 1/8	54	2 13/16	73	2 13/16	73	3 1/16	78	8.9	4.0	9.0	4.1
				3½	90	2 3/8	60	2 3/8	60	2 3/16	56	3 3/8	86	3 3/8	86	3 3/16	81	11	5.0	–	–
				4	100	2 11/16	68	2 11/16	68	2 7/16	62	3 11/16	94	3 11/16	94	3½	89	13	5.8	–	–
				5	125	3 3/8	86	3 5/16	84	2 9/16	65	4 5/16	110	4 5/16	110	3¾	95	20	9	–	–

See additional sizes on previous and following page. Note: See page PF-75 for pressure-temperature ratings.

Cast Iron Threaded Fittings
Class 125, (Standard)

Reducing Tee: Figure 359

Size						A		B		C		D		E		F		Wt.			
																		black		galv.	
NPS	Dn	NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lns	kg	lbs	kg
3½	90	1¼	32	3	80	2 3/16	56	2½	64	2 3/8	60	3 3/16	81	3⅛	79	3 3/8	86	13	5.7	–	–
		2	50	3½	90	2 7/16	62	2 7/16	62	2 7/16	62	3 7/16	87	3 5/16	84	3 7/16	87	13	5.9	–	–
		2½	65	2½	65	1 15/16	49	1 15/16	49	2 3/8	60	2 7/8	73	2 13/16	73	3 5/16	84	11	4.8	–	–
				3	80	2 3/16	56	2 1/16	52	2 3/8	60	3 3/16	81	3	76	3 5/16	84	12	5.3	–	–
				3½	90	2 7/16	62	2 3/8	60	2 7/16	62	3 7/16	87	3 5/16	84	3 7/16	87	13	5.7	–	–
				4	100	2 11/16	68	2 5/8	67	2½	64	3 11/16	94	3 11/16	94	3½	89	15	6.9	–	–
		3	80	1½	40	1 3/8	35	1 3/8	35	2 7/16	62	2 3/8	60	2 5/16	59	3 1/16	78	8.3	3.8	–	–
				2	50	1 5/8	41	1 9/16	40	2 7/16	62	2 5/8	67	2 9/16	65	3 3/16	81	8.7	3.9	–	–
				2½	65	1 15/16	49	1 7/8	48	2 3/8	60	2 7/8	73	2 13/16	73	3 5/16	84	10.0	4.5	–	–
				3	80	2 3/16	56	2 1/8	54	2 3/8	60	3 3/16	81	3⅛	79	3 3/8	86	11	5.1	–	–
				3½	90	2 7/16	62	2 3/8	60	2 7/16	62	3 7/16	87	3 7/16	87	3 7/16	87	14	6.3	–	–
				4	100	2 11/16	68	2 11/16	68	2½	64	3 11/16	94	3 11/16	94	3½	89	15	6.9	–	–
				5	125	3 5/16	84	3 5/16	84	2 9/16	65	4 5/16	110	4 5/16	110	3¾	95	20	9	–	–
		3½	90	1	25	11/16	17	11/16	17	2 3/8	60	2⅛	54	2⅛	54	2 15/16	75	8.0	3.6	–	–
				1¼	32	1¼	32	1¼	32	2 3/8	60	2¼	57	2¼	57	3	76	8.6	3.9	–	–
				1½	40	1⅜	35	1⅜	35	2 7/16	62	2⅜	60	2⅜	60	3 1/16	78	8.9	4.0	–	–
				2	50	1⅝	41	1⅝	41	2 7/16	62	2⅝	67	2⅝	67	3 3/16	81	9.9	4.5	–	–
				2½	65	1 15/16	49	1 15/16	49	2 3/8	60	2 7/8	73	2 7/8	73	3 5/16	84	11	5.0	–	–
				3	80	2 3/16	56	2 3/16	56	2 3/8	60	3 3/16	81	3 3/16	81	3⅜	86	12	5.4	–	–
				4	100	2 11/16	68	2 11/16	68	2½	64	3 11/16	94	3 11/16	94	3½	89	14	6.5	–	–
				5	125	3 5/16	84	3 5/16	84	2 9/16	65	4 5/16	110	4 5/16	110	3¾	95	20	8.9	–	–

See additional sizes on previous and following page. Note: See page PF-75 for pressure-temperature ratings.

Cast Iron Threaded Fittings
Class 125, (Standard)

ANVIL INTERNATIONAL, INC.

Reducing Tee: Figure 359

Size						A		B		C		D		E		F		Wt.			
																		black		galv.	
NPS	Dn	NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lns	kg	lbs	kg
4	100	¾	20	4	100	2¾	70	3	76	2¾	70	3¾	95	3½	89	3¾	95	13	6.0	–	–
		1	25	4	100	2¾	70	2 15/16	75	2¾	70	3¾	95	3½	89	3¾	95	14	6.1	–	–
		1¼	32	4	100	2¾	70	2⅞	73	2¾	70	3¾	95	3½	89	3¾	95	14	6.5	–	–
		1½	40	4	100	2¾	70	2⅞	73	2¾	70	3¾	95	3½	89	3¾	95	13	6.1	–	–
		2	50	2	50	1 11/16	43	1⅞	48	2¾	70	2 11/16	68	2 9/16	65	3½	89	11	5.1	–	–
				2½	65	1⅞	48	1⅞	48	2⅝	67	2 15/16	75	2 13/16	73	3 9/16	90	12	5.3	–	–
				3	80	2¼	57	2 7/16	62	2 11/16	68	3¼	83	3⅛	79	3⅝	92	13	6.1	–	–
				4	100	2¾	70	2¾	70	2¾	70	3¾	95	3½	89	3¾	95	13	6.0	–	–
		2½	65	2½	65	1⅞	48	1 13/16	47	2⅝	67	2 15/16	75	2 13/16	73	3 9/16	90	12	5.3	–	–
				3	80	2¼	57	2⅛	54	2 11/16	68	3¼	83	3⅛	79	3⅝	92	13	5.9	–	–
				4	100	2¾	70	2¾	70	2¾	70	3¾	95	3⅝	92	3¾	95	16	7.1	–	–
				5	125	3⅜	86	3½	89	2 13/16	73	4⅜	111	4⅜	111	4	102	22	10	–	–
		3	80	1¼	32	15/16	24	15/16	24	2⅝	67	2 5/16	59	2¼	57	3 5/16	84	9.7	4.4	–	–
				1½	40	1 7/16	37	1 7/16	37	2 11/16	68	2 7/16	62	2⅜	60	3 5/16	84	10	4.6	–	–
				2	50	1 11/16	43	1 9/16	40	2¾	70	2 11/16	68	2 9/16	65	3½	89	10	4.6	11	4.8
				2½	65	1⅞	48	1⅞	48	2⅝	67	2 15/16	75	2 13/16	73	3 9/16	90	11	5.1	–	–
				3	80	2¼	57	2⅛	54	2 11/16	68	3¼	83	3⅛	79	3⅝	92	13	5.7	–	–
				4	100	2¾	70	2 11/16	68	2¾	70	3¾	95	3⅝	92	3¾	95	15	6.8	–	–
		3½	90	1½	40	1 7/16	37	1⅜	35	2 11/16	68	2 7/16	62	2⅜	60	3 5/16	84	10	4.6	–	–
				2	50	1 1/16	17	1⅝	41	2¾	70	2 11/16	68	2⅝	67	3½	89	11	4.9	–	–
				2½	65	2	51	1 15/16	49	2⅝	67	3	76	2⅞	73	3 9/16	90	12	5.4	–	–
				3	80	2¼	57	2 3/16	56	2 11/16	68	3¼	83	3¼	83	3⅝	92	15	6.6	–	–
				3½	90	2½	64	2 7/16	62	2 11/16	68	3½	89	3 7/16	87	3 11/16	94	14	6.5	–	–
				4	100	2¾	70	2 11/16	68	2¾	70	3¾	95	3¾	95	3¾	95	17	7.8	–	–
				5	125	3⅜	86	3 5/16	84	2 13/16	73	4⅜	111	4⅜	111	4	102	21	9	–	–
		4	100	¾	20	1¼	32	1¼	32	2 13/16	73	2 5/16	59	2 5/16	59	3 5/16	84	11	4.8	–	–
				1	25	13/16	22	13/16	22	2¾	70	2 5/16	59	2 5/16	59	3 5/16	84	10	4.7	11	4.9
				1¼	32	15/16	24	15/16	24	2⅝	67	2 5/16	59	2 5/16	59	3 5/16	84	10	4.7	11	4.8
				1½	40	1 7/16	37	1 7/16	37	2 11/16	68	2 7/16	62	2 7/16	62	3 5/16	84	11	4.9	11	5.1
				2	50	1 11/16	43	1 11/16	43	2¾	70	2 11/16	68	2 11/16	68	3½	89	12	5.3	12	5.3
				2½	65	2	51	2	51	2⅝	67	2 15/16	75	2 15/16	75	3 9/16	90	13	5.8	13	5.9
				3	80	2¼	57	2¼	57	2 11/16	68	3¼	83	3¼	83	3⅝	92	14	6.4	15	6.7
				5	125	3⅜	86	3⅜	86	2 13/16	73	4⅜	111	4⅜	111	4	102	21	9	–	–
				6	150	3⅞	98	3⅞	98	2⅞	73	4 15/16	125	4 15/16	125	4 1/16	103	26	12	–	–
5	125	2	50	5	125	3 5/16	84	3 9/16	90	3 5/16	84	4½	114	4¼	108	4½	114	22	10	–	–
		2½	65	5	125	3 5/16	84	3⅜	86	3 5/16	84	4½	114	4¼	108	4½	114	22	10	–	–
		3	80	4	100	2 3/16	56	2 3/16	56	3⅜	86	4	102	3¾	95	4⅜	111	24	11	–	–
				6	150	3 13/16	97	4 1/16	103	3⅜	86	5	127	5	127	4⅝	117	31	14	–	–
		3½	90	3	80	2 5/16	59	2½	64	3¼	83	3½	89	3½	89	4¼	108	23	11	–	–
				4	100	2 13/16	71	2 11/16	68	3⅜	86	4	102	3¾	95	4⅜	111	23	10	–	–
				6	150	3 13/16	97	4	102	3⅜	86	5	127	5	127	4⅝	117	29	13	–	–
		4	100	2½	65	2 1/16	52	2	51	3 3/16	81	3 3/16	81	3 3/16	81	4¼	108	22	10	–	–
				3	80	2 5/16	59	2 7/16	62	3¼	83	3½	89	3½	89	4¼	108	24	11	–	–
				4	100	2 13/16	71	2¾	70	3⅜	86	4	102	3¾	95	4⅜	111	21	9	–	–
				5	125	3 5/16	84	3⅜	86	3 5/16	84	4½	114	4⅜	111	4½	114	26	12	–	–
				6	150	3 13/16	97	3⅞	98	3⅜	86	5	127	5	127	4⅝	117	34	15	–	–
		5	125	1½	40	1 9/16	40	1 9/16	40	3 5/16	84	2 11/16	68	2 11/16	68	4	102	16	7.4	–	–
				2	50	1¾	44	1¾	44	3 7/16	87	2 15/16	75	2 15/16	75	4⅛	105	17	7.9	–	–
				2½	65	2 1/16	52	2 1/16	52	3⅜	86	3 3/16	81	3 3/16	81	4¼	108	19	8.5	–	–
				3	80	2 5/16	59	2 5/16	59	3¼	83	3½	89	3½	89	4¼	108	20	9.1	–	–
				4	100	2 13/16	71	2 13/16	71	3⅜	86	4	102	4	102	4⅜	111	24	11	–	–
				6	150	3 13/16	97	3 13/16	97	3⅜	86	5	127	5	127	4⅝	117	33	15	–	–
				8	200	5 3/16	132	5 3/16	132	4 3/16	106	6⅜	162	6⅜	162	5 9/16	141	68	31	–	–

See additional sizes on previous and following page. Note: See page PF-75 for pressure-temperature ratings.

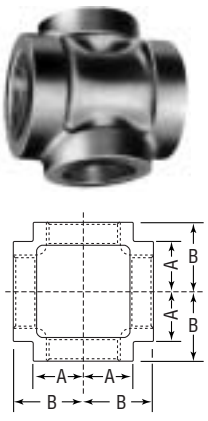
Cast Iron Threaded Fittings
Class 125, (Standard)

Reducing Tee: Figure 359

Size						A		B		C		D		E		F		Wt. black		Wt. galv.	
NPS	Dn	NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
6	150	1½	40	6	150	3⅞	98	4 1/16	103	3⅞	98	5⅛	130	4 11/16	119	5⅛	130	35	16	–	–
		2	50	6	150	3⅞	98	4	102	3⅞	98	5⅛	130	4 11/16	119	5⅛	130	35	16	–	–
		2½	65	6	150	3⅞	98	3 13/16	97	3⅞	98	5⅛	130	4 11/16	119	5⅛	130	35	16	–	–
		3	80	4	100	2 13/16	71	3	76	3⅞	98	4 1/16	103	4	102	4 15/16	125	32	15	–	–
		3½	90	6	150	3⅞	98	3⅞	98	3⅞	98	5⅛	130	4 15/16	125	5⅛	130	35	16	–	–
		4	100	3	80	2 5/16	59	2½	64	3⅞	98	3 9/16	90	3 9/16	90	4 13/16	122	32	14	–	–
				4	100	2⅞	73	2 15/16	75	3⅞	98	4 1/16	103	4	102	4 15/16	125	30	14	–	–
				6	150	3⅞	98	3⅞	98	3⅞	98	5⅛	130	4 15/16	125	5⅛	130	34	16	–	–
		5	125	1½	40	1⅝	41	1 9/16	40	3⅞	98	2¾	70	2¾	70	4½	114	26	12	–	–
				3½	90	2⅝	67	2 9/16	65	3 13/16	97	3⅞	98	3¾	95	4⅞	124	30	14	–	–
				6	150	3⅞	98	3 15/16	100	3⅞	98	5⅛	130	5⅛	130	5⅛	130	43	20	–	–
				8	200	5⅛	130	5 5/16	132	4 3/16	106	6⅜	162	6⅜	162	5 9/16	141	66	30	–	–
		6	150	1¼	32	1⅜	35	1⅜	35	3 13/16	97	2⅝	67	2⅝	67	4 7/16	113	22	10	–	–
				2	50	1 13/16	46	1 13/16	46	3⅞	98	3	76	3	76	4⅝	117	25	11	–	–
				2½	65	2	51	2	51	3 13/16	97	3¼	83	3¼	83	4¾	121	26	12	27	12
				3	80	2⅜	60	2⅜	60	3 13/16	97	3 9/16	90	3 9/16	90	4 13/16	122	27	12	29	13
				4	100	2⅞	73	2⅞	73	3⅞	98	4 1/16	103	4 1/16	103	4 15/16	125	32	15	34	15
				5	125	3⅜	86	3⅜	86	3 13/16	97	4⅝	117	4⅝	117	5	127	37	17	–	–
				8	200	5⅛	130	5⅛	130	4 3/16	106	6⅜	162	6⅜	162	5 9/16	141	58	26	–	–
8	200	2	50	8	200	5 5/16	132	5⅞	149	5 5/16	132	6 9/16	167	6 9/16	167	6 9/16	167	64	29	–	–
		4	100	8	200	5 5/16	132	5½	140	5 5/16	132	6 9/16	167	6 9/16	167	6 9/16	167	67	30	–	–
		5	125	5	125	4 3/16	106	4⅜	111	5 5/16	132	5 9/16	141	5 9/16	141	6⅜	162	78	35	–	–
		6	150	5	125	4 3/16	106	4 5/16	110	5 5/16	132	5 9/16	141	5 9/16	141	6⅜	162	77	35	–	–
				6	150	4 3/16	106	4 5/16	110	5⅛	130	5 9/16	141	5 9/16	141	6⅜	162	74	33	–	–
				8	200	5 5/16	132	5⅛	130	5 5/16	132	6 9/16	167	6 9/16	167	6 9/16	167	92	42	–	–
		8	200	2	50	2 1/16	52	2 1/16	52	5⅛	130	3 7/16	87	3 7/16	87	5⅞	149	44	20	–	–
				2½	65	2 5/16	59	2 5/16	59	5 1/16	129	3 11/16	94	3 11/16	94	6	152	45	21	–	–
				3	80	3⅛	79	3⅛	79	5⅛	130	4½	114	4½	114	6⅛	156	55	25	–	–
				3½	90	3⅛	79	3⅛	79	5⅛	130	4½	114	4½	114	6⅛	156	54	25	–	–
				4	100	3⅛	79	3⅛	79	5⅛	130	4½	114	4½	114	6⅛	156	54	24	–	–
				5	125	4 3/16	106	4 3/16	106	5 3/16	132	5 9/16	141	5 9/16	141	6⅜	162	68	31	–	–
				6	150	4 3/16	106	4 3/16	106	5⅛	130	5 9/16	141	5 9/16	141	6⅜	162	66	30	–	–

See additional sizes on previous page. Note: See page PF-75 for pressure-temperature ratings.

Straight Cross Figure 360

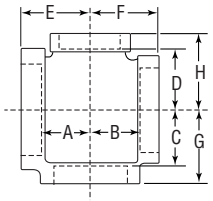


Size		A		B		Weight black	
NPS	Dn	in	mm	in	mm	lbs	kg
½	15	13/16	22	9/16	14	2.8	1.3
¾	20	1 5/16	33	13/16	22	1.0	0.47
1	25	1½	38	15/16	24	1.6	0.72
1¼	32	1¾	44	1⅛	29	2.4	1.1
1½	40	1 15/16	49	1 5/16	33	3.2	1.5
2	50	2¼	57	1 9/16	40	5.1	2.3
2½	65	2 11/16	68	1 13/16	47	8.1	3.7
3	80	3⅛	79	2 3/16	56	12	5.4
4	100	3 13/16	98	2¾	70	20	8.9
5	125	4½	114	3 5/16	84	31	14
6	150	5⅛	130	3⅞	98	48	22

Cast Iron Threaded Fittings
Class 125, (Standard)

ANVIL INTERNATIONAL, INC.

Reducing Cross
Figure 361



2 NPS
3 NPS — 2½ NPS
1¼ NPS

Read as:
3 x 2½ x 2 x 1¼

50 DN
80 DN — *65 DN*
32 DN

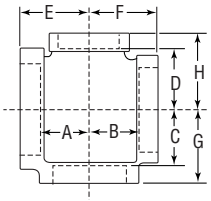
Read as:
80 x 65 x 50 x 32

Size								A		B		C		D		E, F		G, H		Weight	
NPS	DN	NPS	DN	NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
1	25	1	25	¾	20	¾	20	13/16	22	13/16	22	15/16	24	15/16	24	1⅜	35	1 1/16	37	1.3	0.59
1¼	32	1¼	32	1	25	1	25	15/16	24	15/16	24	1⅛	29	1⅛	29	1 9/16	40	1 11/16	43	2.0	0.9
1½	40	1	25	1	25	1	25	1	25	1⅛	29	1¼	32	1¼	32	1⅝	41	1 13/16	47	2.7	1.2
		1¼	32	1	25	1	25	1	25	1	25	1¼	32	1¼	32	1⅝	41	1 13/16	47	2.7	1.2
		1½	40	1	25	1	25	1	25	1	25	1¼	32	1¼	32	1⅝	41	1 13/16	47	2.5	1.1
				1¼	32	1	25	1⅛	29	1⅛	29	13/16	22	15/16	24	1 13/16	47	1⅞	48	3.9	1.8
						1¼	32	1⅛	29	1⅛	29	1⅜	35	1⅜	35	1 13/16	47	1⅞	48	4.0	1.8
2	50	1½	40	1	25	1	25	11/16	17	1⅛	29	1 7/16	37	1 7/16	37	1¾	44	2	51	3.6	1.6
				1¼	32	1	25	1⅛	29	13/16	22	1½	38	1 7/16	37	1⅞	48	2⅛	54	4.3	1.9
				1¼	32	1¼	32	13/16	22	13/16	22	1½	38	1½	38	1⅞	48	2 1/16	52	4.2	1.9
		2	50	1	25	1	25	11/16	17	11/16	17	1 7/16	37	1 7/16	37	1¾	44	2	51	3.2	1.5
				1¼	32	1¼	32	1⅛	29	1⅛	29	1 7/16	37	1 7/16	37	1⅞	48	2⅛	54	4.0	1.8
				1½	40	1½	40	1¼	32	1¼	32	1 7/16	37	1 7/16	37	2	51	2⅛	54	4.1	1.9
2½	65	1½	40	1¼	32	1¼	32	1⅛	29	13/16	22	1 13/16	47	1 13/16	47	2 1/16	52	2⅜	60	6.0	2.7
				1½	40	1	25	15/16	24	1 9/16	40	1⅞	48	1 13/16	47	2 3/16	56	2 1/16	62	6.5	3.0
		2	50	1	25	1	25	1	25	11/16	17	1 13/16	47	1 13/16	47	1 15/16	49	2 5/16	59	5.1	2.3
				1¼	32	1	25	1⅛	29	13/16	22	1 13/16	47	1 13/16	47	2 1/16	52	2⅜	60	5.9	2.7
						1¼	32	1⅛	29	13/16	22	1 13/16	47	1 13/16	47	2 1/16	52	2⅜	60	5.9	2.7
				1½	40	1½	40	1¼	32	15/16	24	1⅞	48	1⅞	48	2 3/16	56	2 1/16	62	6.1	2.8
				2	50	2	50	1½	38	1¾	44	1⅞	48	1⅞	48	2 7/16	62	2 9/16	65	7.2	3.3
		2½	65	1	25	1	25	1	25	1	25	1 13/16	47	1 13/16	47	1 15/16	49	2 5/16	59	5.1	2.3
				1¼	32	1	25	13/16	22	13/16	22	1¾	44	1 13/16	47	2 1/16	52	2⅜	60	5.4	2.4
						1¼	32	1⅛	29	1⅛	29	1 13/16	47	1 13/16	47	2 1/16	52	2⅜	60	5.3	2.4
				1½	40	1¼	32	1¼	32	1¼	32	1 13/16	47	1 13/16	47	2 3/16	56	2 7/16	62	5.6	2.5
						1½	40	1¼	32	1¼	32	1⅞	48	1⅞	48	2 3/16	56	2 7/16	62	5.7	2.6
				2	50	2	50	1 9/16	40	1 9/16	40	1 15/16	49	1 15/16	49	2 7/16	62	2 9/16	65	6.8	3.1
3	80	2½	65	1	25	1	25	11/16	17	1⅛	29	2⅛	54	2⅛	54	2 1/16	52	2 11/16	68	7.5	3.4
				1½	40	1½	40	1⅜	35	1 7/16	37	2 3/16	56	2 3/16	56	2 5/16	59	2 13/16	73	8.4	3.8
				2	50	2	50	1⅝	41	1 11/16	43	2¼	57	2¼	57	2 9/16	65	2 15/16	75	9.6	4.4
		3	80	1	25	1	25	11/16	17	11/16	17	2⅛	54	2⅛	54	2 1/16	52	2 11/16	68	6.7	3.0
				1¼	32	1¼	32	13/16	22	13/16	22	2⅛	54	2⅛	54	2 3/16	56	2¾	70	7.2	3.3
				1½	40	1¼	32	1⅜	35	1⅜	35	2 3/16	56	2 3/16	56	2 5/16	59	2 13/16	73	7.9	3.6
						1½	40	1⅜	35	1⅜	35	2 3/16	56	2 3/16	56	2 5/16	59	2 13/16	73	7.9	3.6
				2	50	1½	40	1⅝	41	1⅝	41	2 3/16	56	2 3/16	56	2 9/16	65	2 15/16	75	9.3	4.2
						2	50	1⅝	41	1⅝	41	2 3/16	56	2 3/16	56	2 9/16	65	2 15/16	75	8.8	4.0
				2½	65	2½	65	1⅞	48	1⅞	48	2 3/16	56	2 3/16	56	2 13/16	73	3 1/16	78	10.0	4.5
3½	90	3	80	1½	40	1½	40	1⅜	35	1 7/16	37	2 7/16	62	2 7/16	62	2⅜	60	3 1/16	78	10	4.7
				2½	65	2½	65	1⅞	48	1 15/16	49	2 7/16	62	2⅞	73	2⅞	73	3 5/16	84	13	5.9
		3½	90	1¼	32	1¼	32	1¼	32	1¼	32	2⅜	60	2⅜	60	2¼	57	3	76	9.1	4.1
				1½	40	1¼	32	1⅜	35	1⅜	35	2 7/16	62	2 7/16	62	2⅜	60	3 1/16	78	9.8	4.4
4	100	3	80	1½	40	1½	40	1⅜	35	1 7/16	37	2 11/16	68	2⅝	67	2 7/16	62	3 5/16	84	14	6.1
		3	80	2	50	2	50	1⅝	41	1 11/16	43	2 13/16	73	2 13/16	73	2 11/16	68	3½	89	14	6.1
		3½	90	1¼	32	1¼	32	1¼	32	15/16	24	2 11/16	68	2 11/16	68	2 5/16	59	3 5/16	84	11	5.2
		4	100	1	25	1	25	1¼	32	1¼	32	2¾	70	2¾	70	2 5/16	59	3 5/16	84	11	5.0
				1¼	32	1¼	32	1¼	32	1¼	32	2 11/16	68	2 11/16	68	2 5/16	59	3 5/16	84	11	4.9
				1½	40	1½	40	1⅜	35	1⅜	35	2 11/16	68	2 11/16	68	2 7/16	62	3 5/16	84	12	5.4
						1½	40	2	51	2	51	2⅞	73	2 11/16	68	2 15/16	75	3 9/16	90	14	6.5
				2½	65	2	50	1⅞	48	1⅞	48	2 11/16	68	2⅞	73	2 15/16	75	3 9/16	90	15	6.7
						2½	65	2	51	2	51	2 11/16	68	2 11/16	68	2 15/16	75	3 9/16	90	14	6.4
				3	80	3	80	2 3/16	56	2 3/16	56	2 11/16	68	2 11/16	68	3¼	83	3⅝	92	16	7.0
				3½	90	3½	90	2 11/16	68	2 11/16	68	2¾	70	2¾	70	3¾	95	3¾	95	21	10
				4	100	2	50	1 11/16	43	1 11/16	43	2 11/16	68	2 11/16	68	2¾	70	3 1/16	87	12	5.4

Note: See page PF-75 for pressure-temperature ratings. See additional sizes on following page.

Cast Iron Threaded Fittings
Class 125, (Standard)

Reducing Cross
Figure 361



2 NPS
3 NPS — 2½ NPS
1¼ NPS

Read as:
3 x 2½ x 2 x 1¼

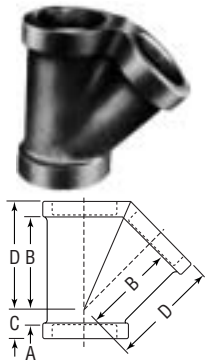
50 DN
80 DN — *65 DN*
32 DN

Read as:
80 x 65 x 50 x 32

Size								A		B		C		D		E, F		G, H		Weight	
NPS	DN	NPS	DN	NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
5	125	4	100	1½	40	1½	40	1½	38	1⅝	41	3⅜	86	3⅜	86	2 11/16	68	4	102	19	8.5
				2½	65	2	50	2	51	2⅛	54	3 5/16	84	3 9/16	90	3 3/16	81	4¼	108	22	10
		5	125	2	50	2	50	1¾	44	1¾	44	3 7/16	87	3 7/16	87	2 15/16	75	4⅛	105	18	8.3
				3	80	3	80	2 5/16	59	2 5/16	59	3 5/16	84	3 5/16	84	3½	89	4 5/16	110	23	10
6	150	5	125	1½	40	1½	40	1½	38	1 9/16	40	3⅞	98	3⅞	98	2¾	70	4½	114	26	12
				2	50	2	50	1¾	44	1 13/16	47	3 15/16	100	3 15/16	100	3	76	4⅝	117	28	13
				3	80	3	80	2 5/16	59	2⅜	60	3⅞	98	3⅞	98	3 9/16	90	4 13/16	124	33	15
		6	150	1¼	32	1¼	32	1⅜	35	1⅜	35	3 13/16	98	3 13/16	98	2⅝	67	4 7/16	113	23	10
				2½	65	2½	65	2	51	2	51	3⅞	98	3⅞	98	3¼	83	4¾	121	26	12
				4	100	4	100	2 13/16	73	2 13/16	73	3⅞	98	3⅞	98	4 1/16	103	4 15/16	125	33	15
				5	125	5	125	3⅜	86	3⅜	86	3 13/16	98	3 13/16	98	4⅝	117	5	127	39	18
8	200	8	200	4	100	4	100	3⅛	79	3⅛	79	5 1/16	129	5 1/16	129	4½	114	6⅛	156	56	25
				5	125	5	125	4 3/16	106	4 3/16	106	5 3/16	132	5 3/16	132	5 9/16	141	6⅜	162	80	36

Note: See page PF-75 for pressure-temperature ratings. See additional sizes on previous page.

Lateral
Figure 373



Size)		A		B		C		D		Weight black	
NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg
¾	20	¼	6	1¾	44	¾	19	2¼	57	1.00	0.45
1	25	3/16	5	2 3/16	56	¾	19	2¾	70	1.6	0.73
1¼	32	⅜	10	2⅝	67	1	25	3¼	83	2.6	1.2
1½	40	7/16	11	3 3/16	81	1 1/16	27	3 13/16	98	3.6	1.6
2	50	9/16	14	3 13/16	98	1¼	32	4½	114	5.8	2.6
2½	65	⅝	16	4 5/16	110	1½	38	5 3/16	132	9.0	4.1
3	80	13/16	22	5 3/16	132	1¾	44	6⅛	156	14	6.1
4	100	1 1/16	27	6 9/16	167	2⅛	54	7⅝	194	21	10

Note: See page PF-75 for pressure-temperature ratings.

Cast Iron Threaded Fittings
Class 125, (Standard)

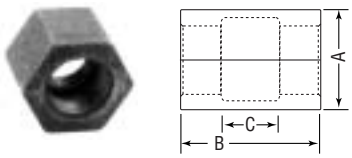
ANVIL INTERNATIONAL, INC.

Return Bends Close Pattern, R.H. Figure 375	Size		Center to Center		Weight black	
	NPS	DN	in	mm	lbs	kg
	½	15	1¼	32	0.65	0.29
	¾	20	1½	38	1.1	0.50
	1	25	1¾	44	1.7	0.78
	1¼	32	2¼	57	2.4	1.1
	1½	40	2½	64	3.5	1.6

Return Bends Open Figure 376	Size		Center to Center		Weight black	
	NPS	DN	in	mm	lbs	kg
	½	15	1½	38	—	—
	¾	20	1⅞	48	0.98	0.44
	1	25	2½	64	1.5	0.67
	1¼	32	3	76	2.4	1.1
	1½	40	3½	89	3.3	1.5

Special Wide Pattern Figure 377	Size		Center to Center		Weight			
					black		galv.	
	NPS	DN	in	mm	lbs	kg	lbs	kg
	1	25	4	102	2.2	1.0	•	•
	1¼	32	4	102	3.5	1.6	•	•
	1¼	32	6	152	3.7	1.7	•	•
	•Not stocked							

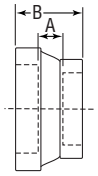
Note: See page PF-75 for pressure-temperature ratings.

Hex Coupling Figure 366	Size		Across Flats A		B		C		Weight black	
	NPS	DN	in	mm	in	mm	in	mm	lbs	kg
	1	25	1 15/16	49	1 11/16	43	9/16	14	0.82	0.37

Flange Union Gasket Type Figure 487	Size		Diam. of Flanges		No. of bolts	Weight			
						black		galv	
	NPS	DN	in	mm		lbs	kg	lbs	kg
Assembled with gaskets	½	15	2 15/16	75	3	1.8	0.79	1.8	0.82
	¾	20	3	76	3	2.0	0.91	2.0	0.9
	1	25	3¼	83	3	2.3	1.0	2.3	1.0
	1¼	32	4 3/16	106	4	4.8	2.2	4.8	2.2
	1½	40	4⅜	111	4	5.0	2.3	5.1	2.3
	2	50	5	127	4	6.5	2.9	6.7	3.0
	2½	65	5⅝	143	4	8.5	3.9	8.7	3.9
	3	80	6⅜	162	4	11	5.0	11	5.1
	3½	90	6⅞	175	4	13	5.8	13	5.9
	4	100	7 11/16	195	5	18	8.2	19	8.4
	5	125	8 15/16	227	5	22	10	23	10
	6	150	10¼	260	6	30	14	31	14
	8	200	12 15/16	329	8	51	23	53	24

Cast Iron Threaded Fittings
Class 125, (Standard)

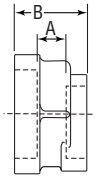
Concentric Reducers
Figure 367



Size				A		B		Weight black	
NPS	DN	NPS	DN	in	mm	in	mm	lbs	kg
¾	20	½	15	5/8	16	1 9/16	40	0.40	0.18
1	25	■ ½	■ 15	11/16	17	1 11/16	43	0.54	0.24
		■ ¾	■ 20	7/16	11	1½	38	0.63	0.29
1¼	32	½	15	9/16	14	1 5/8	41	0.84	0.38
		¾	20	1	25	2 1/8	54	1.1	0.49
		1	25	15/16	24	2 1/8	54	1.1	0.49
1½	40	½	15	½	13	1 5/8	41	1.00	0.45
		¾	20	½	13	1 5/8	41	1.2	0.54
		1	25	½	13	1¾	44	1.5	0.68
		1¼	32	1	25	2¼	57	1.5	0.66
2	50	½	15	5/8	16	2	51	2.0	0.91
		¾	20	¾	19	2	51	1.9	0.86
		1	25	¾	19	2	51	1.8	0.83
		1¼	32	13/16	22	2 1/8	54	1.8	0.81
		1½	40	7/8	22	2 3/16	56	2.0	0.90
2½	65	1½	40	¾	19	2	51	3.1	1.4
		2	50	1	25	2 9/16	65	3.0	1.4
3	80	¾	20	15/16	24	2½	64	4.3	2.0
		2	50	1 1/16	27	2¾	70	4.0	1.8
		2½	65	15/16	24	2 13/16	73	4.4	2.0
4	100	2	50	1 3/16	30	2 15/16	75	6.5	2.9
		2½	65	1 3/16	30	3 1/8	79	7.8	3.5
		3	80	1 1/16	27	3 1/8	79	7.0	3.2
5	125	4	100	1 1/16	27	3 5/16	84	10	4.8
6	150	4	100	1 1/8	29	3 7/16	87	14	6.3
		5	125	1 1/8	29	3 9/16	90	16	7.0
8	200	6	150	1¼	32	3 7/8	98	29	13

■ hex end

Eccentric Reducer
Figure 368



Size				A		B *		Weight			
								black		galv.	
NPS	Dn	NPS	Dn	in	mm	in	mm	lbs	kg	lbs	kg
¾	20	½	15	9/16	14	1½	38	0.45	0.20	—	—
1	25	½	15	½	13	1 7/16	37	0.57	0.26	•	•
		¾	20	7/16	11	1½	38	0.61	0.28	—	—
1¼	32	½	15	9/16	14	1 5/8	41	1.00	0.45	—	—
		¾	20	½	13	1 5/8	41	0.90	0.41	—	—
			25	½	13	1 11/16	43	1.00	0.45	•	•
1½	40	½	15	11/16	17	1¾	44	1.1	0.50	—	—
		¾	20	9/16	14	1 11/16	43	1.2	0.53	—	—
		1	25	9/16	14	1¾	44	1.2	0.55	—	—
		1¼	32	5/8	16	1 7/8	48	1.3	0.57	•	•
2	50	½	15	¾	19	1 15/16	49	1.8	0.82	—	—
		¾	20	¾	19	2	51	1.8	0.83	—	—
		1	25	11/16	17	2 1/16	52	1.9	0.84	—	—
		1¼	32	13/16	22	2 1/8	54	1.9	0.85	—	—
		1½	40	7/8	22	2 3/16	56	1.9	0.88	•	•
2½	65	1	25	13/16	22	2¼	57	2.7	1.2	—	—
		1¼	32	7/8	22	2 3/8	60	2.8	1.3	—	—
		1½	40	7/8	22	2 3/8	60	2.9	1.3	—	—
		2	50	1	25	2 9/16	65	3.0	1.3	•	•
3	80	1	25	7/8	22	2 7/16	62	4.0	1.8	—	—
		1¼	32	15/16	24	2 9/16	65	3.8	1.7	—	—
		1½	40	15/16	24	2 9/16	65	4.2	1.9	—	—
		2	50	1 1/16	27	2¾	70	4.6	2.1	—	—
		2½	65	15/16	24	2 13/16	73	4.8	2.2	•	•
3½	90	2	50	1 1/16	27	2¾	70	5.2	2.4	—	—
		3	80	15/16	24	2 15/16	75	6.0	2.7	•	•
4	100	1	25	1 1/16	27	2 11/16	68	6.8	3.1	—	—
		1¼	32	1 1/16	27	2¾	70	6.6	3.0	—	—
		1½	40	1 1/8	29	2 13/16	73	6.6	3.0	—	—
		2	50	1 3/16	30	2 15/16	75	6.9	3.1	—	—
		2½	65	1 1/8	29	3 1/16	78	7.3	3.3	—	—
		3	80	1 1/16	27	3 1/8	79	7.6	3.5	•	•
5	125	2½	65	1 1/8	29	3 3/16	81	11	5.2	—	—
		3	80	1 1/16	27	3¼	83	11	5.2	—	—
		4	100	1 1/16	27	3 5/16	84	11	5.1	•	•
6	150	3	80	1 1/16	27	3 5/16	84	15	6.6	—	—
		4	100	1 1/8	29	3 7/16	87	15	7.0	•	•
		5	125	1 1/8	29	3 9/16	90	18	8.2	•	•
8	200	5	125	1 5/16	33	3¾	95	28	13	—	—
		6	150	1¼	32	3 7/8	98	28	13	•	•

* Dimension "B" does not conform to ASME standard
• Not stocked

Note: See page PF-75 for pressure-temperature ratings.

Cast Iron Threaded Fittings
Class 125, (Standard)

ANVIL® INTERNATIONAL, INC.

Hex Bushing
Figure 383

Size					Weight			
					black		galv.	
NPS	Dn	Hex	NPS	Dn	lbs	kg	lbs	kg
¼	8		⅛	6	0.02*	0.01*	0.02	0.01
⅜	10		⅛	6	0.05	0.02	0.05	0.02
			¼	8	0.04	0.02	0.04	0.02
½	15		⅛	6	0.06	0.03	0.06	0.03
			¼	8	0.07	0.03	0.07	0.03
			⅜	10	0.05	0.02	0.05	0.02
¾	20		⅛	6	0.09	0.04	0.09	0.04
			¼	8	0.10	0.05	0.11	0.05
			⅜	10	0.12	0.05	0.12	0.05
			½	15	0.10	0.05	0.11	0.05
1	25	■	⅛	6	0.21	0.09	0.22	0.10
		■	¼	8	0.19	0.08	0.19	0.09
		■	⅜	10	0.18	0.08	0.19	0.09
			½	15	0.21	0.10	0.22	0.10
			¾	20	0.17	0.08	0.17	0.08
1¼	32	■	¼	8	0.29	0.13	0.30	0.14
		■	⅜	10	0.29	0.13	0.29	0.13
		■	½	15	0.30	0.14	0.30	0.14
			¾	20	0.39	0.17	0.39	0.18
			1	25	0.30	0.13	0.30	0.14
1½	40		¼	8	0.47	0.21	0.49	0.22
		■	⅜	10	0.47	0.21	0.50	0.23
		■	½	15	0.42	0.19	0.47	0.21
		■	¾	20	0.47	0.21	0.50	0.23
			1	25	0.50	0.23	0.52	0.24
			1¼	32	0.33	0.15	0.33	0.15
2	50		¼	8	0.75	0.34	0.80	0.36
			⅜	10	0.75	0.34	0.78	0.35
		■	½	15	0.77	0.35	0.78	0.35
		■	¾	20	0.71	0.32	0.75	0.34
		■	1	25	0.73	0.33	0.76	0.34
		■	1¼	32	0.81	0.37	0.83	0.38
		■	1½	40	0.67	0.30	0.68	0.31
2½	65	■	½	15	1.3	0.58	—	—
		■	¾	20	1.3	0.57	1.3	0.59
		■	1	25	1.2	0.53	1.2	0.56
		■	1¼	32	1.2	0.56	1.3	0.57
		■	1½	40	1.3	0.59	1.3	0.61
			2	50	0.92	0.42	0.95	0.43

Continued to next column

Hex Bushing
Figure 383

Size					Weight			
					black		galv.	
NPS	Dn	Hex	NPS	Dn	lbs	kg	lbs	kg
3	80	■	½	15	1.9	0.88	2.0	0.9
		■	¾	20	1.9	0.87	2.0	0.88
		■	1	25	1.9	0.86	1.9	0.87
		■	1¼	32	1.8	0.80	1.8	0.82
		■	1½	40	1.8	0.81	1.8	0.83
			2	50	1.9	0.86	1.9	0.88
			2½	65	1.6	0.74	1.7	0.75
3½	90	■	1	25	2.6	1.2	2.8	1.2
		■	1¼	32	2.5	1.2	2.6	1.2
		■	1½	40	2.3	1.1	2.4	1.1
		■	2	50	2.4	1.1	2.5	1.1
			2½	65	2.6	1.2	2.6	1.2
			3	80	2.0	0.89	2.0	0.90
4	100	■	1	25	3.6	1.6	3.6	1.6
		■	1¼	32	3.5	1.6	3.6	1.6
		■	1½	40	3.4	1.6	3.5	1.6
		■	2	50	3.1	1.4	3.2	1.5
		■	2½	65	3.3	1.5	3.3	1.5
			3	80	3.1	1.4	3.2	1.5
			3½	90	2.5	1.1	2.6	1.2
5	125	■	2	50	5.1	2.3	5.2	2.4
		■	2½	65	4.9	2.2	5.1	2.3
		■	3	80	4.8	2.2	4.9	2.2
			3½	90	4.0	1.8	4.3	2.0
			4	100	3.9	1.8	4.1	1.9
6	150	■	2	50	8.0	3.6	8.3	3.8
		■	2½	65	7.7	3.5	7.8	3.5
		■	3	80	7.8	3.5	8.1	3.7
		■	3½	90	7.1	3.2	7.4	3.4
		■	4	100	6.8	3.1	7.1	3.2
			5	125	5.2	2.4	5.5	2.5
8	200	■	3	80	16	7.0	16	7.2
		■	4	100	14	6.3	15	6.8
		■	5	125	14	6.2	14	6.4
			6	150	13	6.0	14	6.1
10	250	■	4	100	28	12	—	—
		■	5	125	—	—	—	—
		■	6	150	25	11	—	—
			8	200	22	10	—	—
12	300		4	100	33	15	*	*
			10	250	33	15	33	15

•Not stocked
■ Inside hex
*P.O.A.

Note: Hexagon head or octagon head bushings 2½ NPS *(65 DN)* and smaller reducing one size may be made of malleable iron, ductile iron or steel. Other sizes may be made of cast iron, ductile iron, malleable iron or steel. Face bushings 2½ NPS *(65 DN)* and smaller may be made of malleable iron, ductile iron or steel. Face bushings 3NPS *(80 DN)* and larger reducing one size may be made of malleable iron, ductile iron or steel. Face bushings 3NPS *(80 DN)* and larger reducing two sizes or more may be made of cast or malleable iron, ductile iron, or steel.

According to specifications, hex bushings and cored plugs should be used with 150# malleable iron and 125# cast iron. Solid plugs and face bushings should be used with #250 and #300 fittings.

Note: See page PF-57 and page PF-75 for pressure-temperature ratings.
Pressure/temperature ratings vary with material

Cast Iron Threaded Fittings
Class 125, (Standard)

Face Bushing Figure 385	Size				Weight			
					black		galv.	
	NPS	DN	NPS	DN	lbs	kg	lbs	kg
	¼	8	⅛	6	0.01*	0.00*	—	—
	⅜	10	¼	8	0.02*	0.01*	—	—
	½	15	¼	8	0.04*	0.02*	—	—
			⅜	10	0.03*	0.01*	—	—
	¾	20	⅜	10	0.07*	0.03*	0.07	0.03
			½	15	0.06	0.02	0.06	0.02
	1	25	½	15	0.12	0.05	0.13	0.06
			¾	20	0.09	0.04	0.09	0.04
	1¼	32	½	15	0.25*	0.11*	—	—
			¾	20	0.27*	0.12*	—	—
			1	25	0.16	0.07	0.17	0.07
	1½	40	½	15	0.32	0.15	0.33	0.15
			¾	20	0.39*	0.18*	0.40	0.18
			1	25	0.34	0.15	0.35	0.16
			1¼	32	0.15	0.07	0.15	0.07
	2	50	½	15	0.69*	0.32*	—	—
			1	25	0.53	0.24	0.54	0.24
			1¼	32	0.54	0.24	0.55	0.25
			1½	40	0.34	0.16	0.35	0.16
	2½	65	1¼	32	0.94*	0.42*	0.96*	0.44*
			1½	40	0.85*	0.39*	0.87*	0.39*
			2	50	0.62	0.28	0.62	0.28
	3	80	1¼	32	1.5	0.70	•	•
			1½	40	1.5	0.68	1.6	0.71
			2	50	1.3	0.60	1.4	0.63
			2½	65	0.97	0.44	1.0	0.46
	3½	90	2½	65	1.8	0.80	–	–

* POA

Locknut Figure 370	Size		Minimum Dimensions								Weight			
			A		B		C		D		black		galv.	
	NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
	2½	65	3.500	89	3.180	81	.590	15	.090	2	1.1	0.51	1.2	0.53
	3	80	4.270	108	3.840	98	.670	17	.090	2	1.6	0.73	1.7	0.77
	4	100	5.380	137	5.000	127	.800	20	.130	3	3.5	1.6	–	–

Floor Flange Bolt Holes Cored Figure 1006	Size		Diameter of Flange		No. of Holes	Diameter of Holes		Weight			
								black		galv.	
	NPS	DN	in	mm		in	mm	lbs	kg	lbs	kg
	¼	8	2 13/16	73	4	¼	6	0.39	0.18	0.40	0.18
	⅜	10	3	76	4	¼	6	0.43	0.20	0.45	0.20
	½	15	3½	89	4	¼	6	0.73	0.33	0.74	0.34
	¾	20	3½	89	4	¼	6	0.80	0.36	0.81	0.37
	1	25	4	102	4	¼	6	1.1	0.51	1.1	0.52
	1¼	32	4	102	4	¼	6	1.1	0.52	1.1	0.52
	1½	40	4½	114	4	5/16	8	1.6	0.70	1.6	0.71
	2	50	5½	140	4	5/16	8	2.4	1.1	2.4	1.1

Note:See page PF-57 and page PF-75 for pressure-temperature ratings.

Cast Iron Threaded Fittings
Class 125, (Standard)

ANVIL INTERNATIONAL, INC.

Square Head Plugs (Cored) Figure 387◊	Size		Weight			
			black		galv.	
	NPS	DN	lbs	kg	lbs	kg
	¾	20	0.13	0.06	0.14	0.06
	1	25	0.25	0.11	0.28	0.13
	1¼	32	0.39	0.18	0.41	0.18
	1½	40	0.50	0.23	0.52	0.23
	2	50	0.81	0.37	0.83	0.38
	2½	65	1.3	0.60	1.3	0.61
	3	80	1.9	0.85	1.9	0.87
	3½	90	2.5	1.1	2.6•	1.2•
	4	100	4.0	1.8	4.0	1.8

Countersunk Plugs Figure 390▲	Size		Weight			
			black		galv.	
	NPS	DN	lbs	kg	lbs	kg
	½	15	0.05	0.02	0.05	0.02
	¾	20	0.09	0.04	0.10*	0.05*
	1	25	0.20	0.09	0.20	0.09
	1¼	32	0.32	0.15	0.34	0.15
	1½	40	0.47	0.21	0.48	0.22
	2	50	0.84	0.38	1.3	0.59
	2½	65	1.4	0.64	2.0	0.91
	3	80	2.3	1.0	3.0	1.4
	3½	90	3.0	1.4	—	—
	4	100	3.8	1.7	3.9	1.8

Square Head Plugs (Solid) Figure 388	Size		Weight			
			black		galv.	
	NPS	DN	lbs	kg	lbs	kg
	½	15	0.10	0.05	0.10	0.05
	¾	20	0.17	0.08	0.18	0.08
	1	25	0.32	0.15	0.33	0.15
	1¼	32	0.53	0.24	0.55	0.25
	1½	40	0.76	0.34	0.77	0.35
	2	50	1.2	0.56	1.3	0.57
	2½	65	2.0	0.91	2.1	0.9
	3	80	3.2	1.4	3.3	1.5
	3½	90	4.4	2.0	•	•

Cap Figure 381	Size		Weight			
			black		galv.	
	NPS	DN	lbs	kg	lbs	kg
	2½	65	2.5	1.2	—	—
	3	80	4.1	1.9	—	—
	4	100	6.4	2.9	—	—
	5	125	11	4.9	—	—
	6	150	14	6.4	15	6.6
	8	200	27	12	28	13

Bar Plugs Cored Figure 389	Size		Weight			
			black		galv.	
	NPS	DN	lbs	kg	lbs	kg
	4	100	3.8	1.7	4.0	1.8
	5	125	6.5	2.9	6.8	3.1
	6	150	9.9	4.5	10	4.7
	8	200	20	9	21	10

Bar Plugs Solid Figure 380	Size		Weight			
			black		galv.	
	NPS	DN	lbs	kg	lbs	kg
	4	100	5.7	2.6	•	•
	5	125	9.6	4.4	•	•
	6	150	15	6.7	•	•
	8	200	•	•	•	•

◊ ⅛, ¼, ⅜ NPS *(6, 8 & 10 DN)* plugs furnished in steel

s ½ and ¾ NPS *(15 & 20 DN)* countersunk plugs furnished in malleable iron

• Not stocked

Note: See page PF-75 for pressure-temperature ratings.

* POA

Cast Iron Threaded Fittings
Class 250 (Extra Heavy)

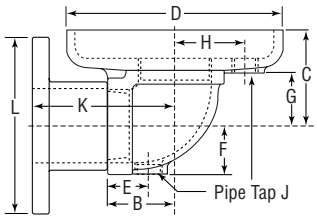
90° Elbow Figure 421	Size		A		B		Weight black	
	NPS	DN	in	mm	in	mm	lbs	kg
	¼	8	⅝	16	15⁄16	24	0.37	0.17
	⅜	10	11⁄16	17	1 1⁄16	27	0.50	0.23
	½	15	13⁄16	22	1¼	32	0.75	0.34
	¾	20	15⁄16	24	1 7⁄16	37	1.1	0.51
	1	25	1 1⁄16	27	1⅝	41	1.8	0.81
	1¼	32	1 5⁄16	33	1 15⁄16	49	3.0	1.4
	1½	40	1½	38	2⅛	54	4.0	1.8
	2	50	1 13⁄16	47	2½	64	6.8	3.1
	2½	65	2	51	2 15⁄16	75	11	4.8
	3	80	2⅜	60	3⅜	86	15	6.9
	3½	90	2¾	70	3¾	95	20	9
	4	100	3 1⁄16	78	4⅛	105	26	12
	8	200	5⅝	143	7	178	122	55

45° Elbow Figure 424	Size		A		B		Weight black	
	NPS	DN	in	mm	in	mm	lbs	kg
	½	15	9⁄16	14	1	25	0.66	0.30
	¾	20	⅝	16	1⅛	29	1.0	0.47
	1	25	¾	19	1 5⁄16	33	1.6	0.71
	1¼	32	⅞	22	1½	38	2.7	1.2
	1½	40	1 1⁄16	27	1 11⁄16	43	3.5	1.6
	2	50	1 5⁄16	33	2	51	6.1	2.8
	2½	65	1 5⁄16	33	2¼	57	9.8	4.4
	3	80	1 9⁄16	40	2½	64	14	6.3
	4	100	1¾	44	2 13⁄16	73	23	10
	6	150	2¼	57	3½	89	50	23

Straight Tee Figure 425	Size		A		B		Weight black	
	NPS	Dn	in	mm	in	mm	lbs	kg
	¼	8	⅝	16	15⁄16	24	0.47	0.21
	⅜	10	11⁄16	17	1 1⁄16	27	0.70	0.32
	½	15	¾	19	1¼	32	1.2	0.54
	¾	20	⅞	22	1 7⁄16	37	1.6	0.71
	1	25	1	25	1⅝	41	2.4	1.1
	1¼	32	1 3⁄16	30	1 15⁄16	49	3.9	1.8
	1½	40	1 7⁄16	37	2⅛	54	5.3	2.4
	2	50	1¾	44	2½	64	9.0	4.1
	2½	65	1 15⁄16	49	2 15⁄16	75	14	6.5
	3	80	2 5⁄16	59	3⅜	86	21	10
	4	100	2 15⁄16	75	4⅛	105	34	15

Reducing Tee Figure 426	Size						A, B		C		D, E		F		Weight black	
	NPS	DN	NPS	DN	NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg
	¾	20	¾	20	½	15	¾	19	⅞	22	1 5⁄16	33	1⅜	35	1.4	0.62
	1	25	1	25	½	15	¾	19	1	25	1⅜	35	1½	38	2.0	0.9
					¾	20	⅞	22	1	25	1½	38	1 9⁄16	40	2.2	1.0
	1¼	32	1¼	32	¾	20	15⁄16	24	1⅛	29	1⅝	41	1 11⁄16	43	3.2	1.5
					1	25	1 1⁄16	27	1 3⁄16	30	1¾	44	1 13⁄16	47	3.5	1.6
	1½	40	1½	40	¾	20	1	25	1¼	32	1 11⁄16	43	1⅞	48	4.0	1.8
					1	25	1⅛	29	1 5⁄16	33	1 13⁄16	47	1 15⁄16	49	4.3	1.9
					1¼	32	1 5⁄16	33	1⅜	35	2	51	2 1⁄16	52	5.0	2.3
	2	50	2	50	¾	20	1⅛	29	1 7⁄16	37	1⅞	48	2	51	6.2	2.8
					1	25	1¼	32	1½	38	2	51	2⅛	54	6.6	3.0
					1¼	32	1⅜	35	1 9⁄16	40	2 3⁄16	56	2¼	57	7.1	3.2
					1½	40	1½	38	1⅝	41	2 5⁄16	59	2 5⁄16	59	7.7	3.5

Cast Iron Threaded
Safety Valve Discharge



Safety valve discharge Elbow - Cast Iron
Threaded Inlet: Figure 1538
Flanged Inlet: Figure 1538F

Elbow Pipe Size		Riser Pipe Size A		B		C		D		E		F		G		H		J		K		L		Weight Figure 1538		Weight Figure 1538F	
NPS	*DN*	*in*	*mm*	*in*	*mm*	*in*	*mm*	*in*	*mm*	*in*	*mm*	*in*	*mm*	*in*	*mm*	*in*	*mm*	*in*	*mm*	*in*	*mm*	*in*	*mm*	*lbs*	*kg*		
2½	65	3½	89	2 11/16	68	4 5/16	110	8½	216	1 5/8	41	1 15/16	49	2 1/8	54	2 3/4	70	3/4	19	—	—	—	—	12	5.4	—	—
3	80	4	102	3 1/8	79	4 7/8	124	9½	241	1 5/8	41	2 5/16	59	2 9/16	65	3 1/8	79	3/4	19	—	—	—	—	15	6.8	—	—
3½	90	5	127	3 7/16	87	5 5/16	135	10¼	260	1¾	44	2 5/8	67	2 7/8	73	3 7/16	87	3/4	19	—	—	—	—	24	10.9	—	—
4	100	5	127	3¾	95	5¾	146	11	279	1¾	44	2 15/16	75	3 3/16	81	3¾	95	3/4	19	—	—	—	—	27	12.2	—	—
5	125	6	152	4½	114	6¾	171	12½	318	1 7/8	48	3 9/16	90	3 15/16	100	4 3/8	111	3/4	19	—	—	—	—	40	18	—	—
6	150	8	203	5 1/8	130	7 5/8	194	13¾	349	2	51	4 3/16	106	4 9/16	116	5	127	3/4	19	—	—	—	—	53	24	—	—
8	200	10	254	6 9/16	167	8 9/16	217	17	432	2 3/8	60	5 3/8	137	5 15/16	151	6 3/8	162	1	25	10¾	273	13½	343	104	47	140	64

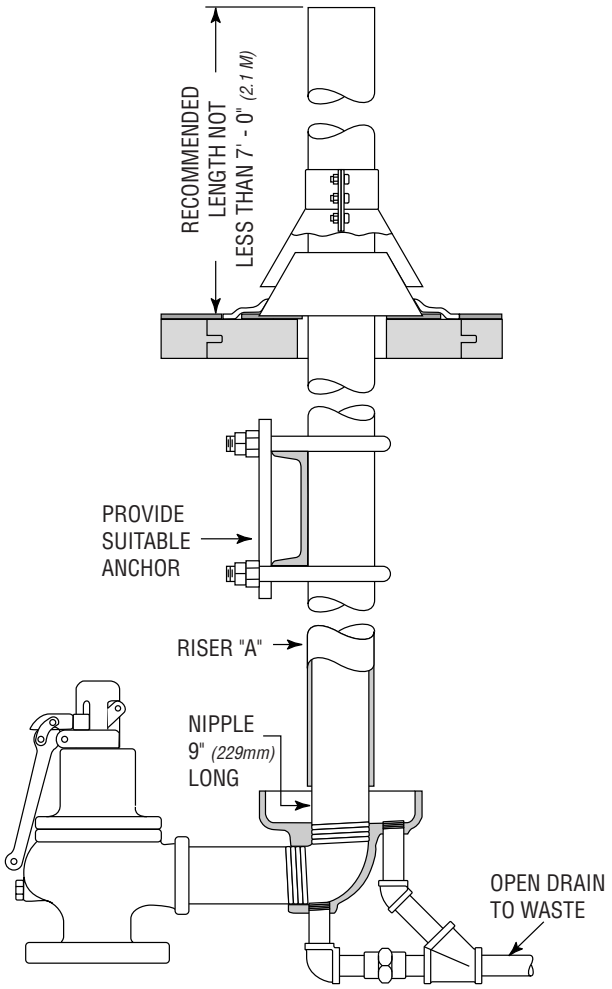
Following are the advantages of Anvil safety valve discharge elbow for piping connections to safety valves when attached to boilers, etc.:

- ❑ Drip pan for removing condensate and rain water cast integral with elbow
- ❑ Strains on safety valve minimized
- ❑ Pipe tap J is standard

With multiple pop safety valve, leakage of vapor at any discharge elbow indicates valve in operation.

Steel elbows and flanged elbows furnished on order.

Elbows with flanged inlet in sizes smaller than 8 NPS *(200 DN)* can be furnished by using the threaded discharge elbow, pipe nipple and forged carbon steel companion flanges.



Cast Iron Drainage Fittings

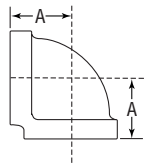
Anvil drainage fittings have sufficient sweep to allow free unobstructed flow. They are made with a shoulder of the same diameter as the inside of the pipe. Thus, continuous passage is created when the pipe is screwed to the shoulder. There is no place for solid matter to collect and clog in the pipe. Also, Anvil drainage fittings are recessed and threaded for wrought pipe.

Coated drainage fittings are avai able in hot dipped, galvanized finish (in sizes listed). Coated drainage fittings are made to order.

90° type drainage fittings are normally tapped with pitch of 1/4 inch *(6mm)* to the foot.

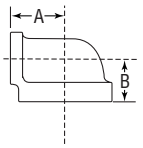
UNPITCHED 90° drainage fittings are P.O.A. only.

90° Short Turn Elbow Figure 701◊



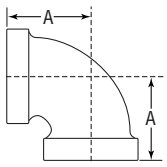
Size		A		Weight black		galv.	
NPS	Dn	in	mm	lns	kg	lbs	kg
1½	40	1 15/16	49	1.9	0.87	2.0	0.90
2	50	2¼	57	3.0	1.4	3.2	1.4
3	80	3 1/16	78	7.1	3.2	7.2	3.3
4	100	3 13/16	98	14	6.2	14	6.3
5	125	4½	114	20	9	—	—
6	150	5⅛	130	33	15	—	—

90° Reducing Short Turn Elbow Figure 701R◊



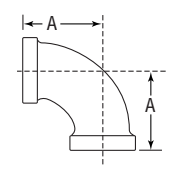
Size				A		B		Weight black	
NPS	DN	NPS	DN	in	mm	in	mm	lbs	kg
1½	32	1¼	32	1⅞	48	1 11/16	43	1.7	0.77
2	40	1½	40	2⅛	54	2	51	2.5	1.1

90° Long Turn Elbow Figure 702◊



Size		A		Weight black		galv.	
NPS	DN	in	mm	lbs	kg	lbs	kg
1½	40	2½	64	2.2	1.0	2.3	1.1
2	50	3 1/16	78	3.6	1.6	3.8	1.7
3	80	4¼	108	9.0	4.1	—	—
4	100	5 3/16	132	16	7.4	—	—

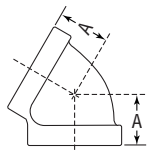
90° Extra Long Turn Elbow Figure 702A◊



Size		A		Weight black	
NPS	DN	in	mm	lbs	kg
1½	40	1¾	44	2.6	1.2

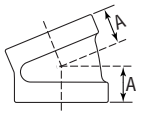
◊Inlets tapped, pitched .25" *(6mm)* to the foot.
Inlets of reducing fittings are always the smallest openings.

60° Short Turn Elbow Figure 703



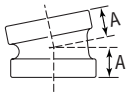
Size		A		Weight black	
NPS	Dn	in	mm	lbs	kg
1½	40	3½	89	2.6	1.2
2	50	4	102	4.5	2.1

22½° Elbow Figure 707



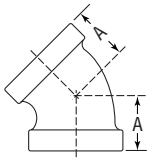
Size		A		Weight black		galv.	
NPS	DN	in	mm	lbs	kg	lbs	kg
1½	40	1¼	32	1.6	0.75	—	—
2	50	1 7/16	37	3.1	1.4	3.1	1.4

11¼° Elbow Figure 708



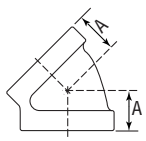
Size		A		Weight black	
NPS	DN	in	mm	lbs	kg
1½	40	1¼	32	1.8	0.82
2	50	1⅜	35	2.7	1.2

45° Long Turn Elbow Figure 706



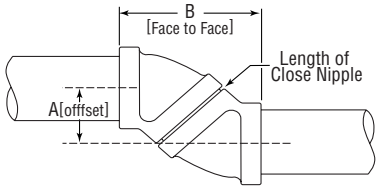
Size		A		Weight black		galv.	
NPS	DN	in	mm	lbs	kg	lbs	kg
1½	40	1⅞	48	2.1	1.0	2.4	1.1
3	80	2 15/16	75	7.4	3.4	—	—

45° Short Turn Elbow Figure 705



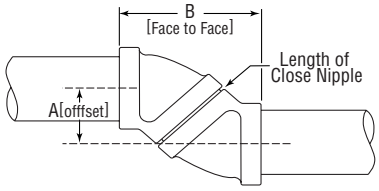
Size		A		Weight black		galv.	
NPS	DN	in	mm	lbs	kg	lbs	kg
1¼	32	1 5/16	33	—	—	1.4	0.63
1½	40	1 7/16	37	1.7	0.78	1.8	0.79
2	50	1 11/16	43	2.8	1.3	2.9	1.3
3	80	2 3/16	56	6.3	2.9	6.5	2.9
4	100	2⅝	67	11	5.2	12	5.4
6	150	3 7/16	87	28	13	—	—

Shortest Offset and Face to Face With Use of Close Nipple



Size		Length Close Nipple		60° Short Figure 703				60° Long Figure 704				45° Short Figure 705				45° Long Figure 706			
				A		B		A		B		A		B		A		B	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
1¼	32	1⅝	41	3	76	4⅞	124	3 11⁄16	94	6⅛	156	2⅛	54	4¾	121	2¾	70	6¼	159
1½	40	1¾	44	3½	89	5½	140	4⅜16	106	6 15⁄16	176	2⅜	60	5¼	133	3	76	6¾	171
2	50	2	51	4⅛	105	6½	165	4⅞	124	7 15⁄16	202	2 13⁄16	73	6 3⁄16	157	3⅝	92	8⅛	206
2½	65	2½	64	4 15⁄16	125	7⅞	200	5 1⁄16	129	8 9⁄16	217	3¼	83	7 1⁄16	179	4 3⁄16	106	9½	241
3	80	2⅝	67	5 9⁄16	141	9	229	5¾	146	9 11⁄16	246	3 9⁄16	90	7 15⁄16	202	4⅝	117	10½	267
4	100	2⅞	73	6½	165	10½	267	7 3⁄16	183	12 3⁄16	310	4¼	108	9½	241	5½	140	12½	318
5	125	3	76	7¼	184	11 15⁄16	303	—	—	—	—	4¾	121	10⅞	276	6¼	159	14½	368
6	150	3⅛	79	7⅞	200	13 1⁄16	332	—	—	—	—	5 5⁄16	135	12⅛	308	7⅜	187	17⅛	435
8	200	3½	89	9⅜	238	16 3⁄16	411	—	—	—	—	6 9⁄16	167	15	381	9	229	—	—
10	250	3⅞	98	—	—	—	—	—	—	—	—	7 15⁄16	202	18 5⁄16	465	—	—	—	—

Shortest Offset and Face to Face With Use of Close Nipple (continued)

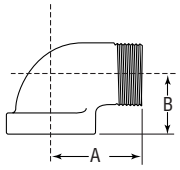


Size		Length Close Nipple		22½° Figure 707				11¼° Figure 708				5⅝° Figure 709			
				A		B		A		B		A		B	
NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm
1¼	32	1⅝	41	1	25	4 1⁄16	119	½	13	4 9⁄16	116	¼	6	5 1⁄16	129
1½	40	1¾	44	1⅛	29	5¼	133	⅝	16	5 7⁄16	138	5⁄16	8	5¾	146
2	50	2	51	1⅜	35	6⅛	156	1 1⁄16	17	6 1⁄16	154	⅜	10	6⅝	168
2½	65	2½	64	1⅝	41	7⅜	187	13⁄16	22	7⅛	181	⅜	10	7 3⁄16	183
3	80	2⅝	67	1 13⁄16	47	8 5⁄16	211	⅞	22	7⅞	200	7⁄16	11	7 11⁄16	195
4	100	2⅞	73	2 1⁄16	52	9 9⁄16	243	15⁄16	24	8⅝	219	7⁄16	11	8 3⁄16	208
5	125	3	76	2¼	57	10 11⁄16	271	1	25	9½	241	7⁄16	11	8⅝	219
6	150	3⅛	79	2½	64	11⅞	302	1 1⁄16	27	10	254	½	13	9 9⁄16	243
8	200	3½	89	3	76	14 7⁄16	367	1¼	32	11⅝	295	9⁄16	14	10¾	273
10	250	3⅞	98	3⅞	98	17 13⁄16	452	1 7⁄16	37	13¼	337	—	—	—	—

◊ inlets tapped, pitched ¼ inch *(6mm)* to the foot, Inlets of reducing fittings are always the smallest openings.

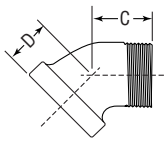
Cast Iron Drainage Fittings

90° Street Elbow Figure 718◊



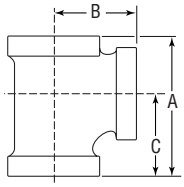
Size		A		B		Weight			
						black		galv.	
NPS	DN	in	mm	in	mm	lbs	kg	lbs	kg
1½	40	3	76	1⅞	48	2.0	0.9	2.1	1.0
2	50	3¼	83	2³⁄₁₆	56	—	—	3.2	1.4

45° Street Elbow Figure 719



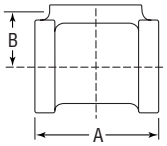
Size		A		B		Weight			
						black		galv.	
NPS	DN	in	mm	in	mm	lbs	kg	lbs	kg
1½	40	2	51	1¼	32	1.6	0.74	1.6	0.75
2	50	2¼	57	1¹¹⁄₁₆	43	2.7	1.2	2.7	1.2

Sanitary Tees 90° Short Turn Figure 726◊



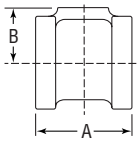
Size		A		B		C		Weight			
								black		galv.	
NPS	DN	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
1½	40	4¼	108	2½	64	2½	64	3.1	1.4	3.2	1.4
2	50	5³⁄₁₆	132	3¹⁄₁₆	78	3¹⁄₁₆	78	5.1	2.3	5.2	2.3
3	80	7¼	184	4¼	108	4¼	108	12	5.3	12	5.6
4	100	8¾	222	5³⁄₁₆	132	5³⁄₁₆	132	21	10	21	10

Tee Figure 722◊



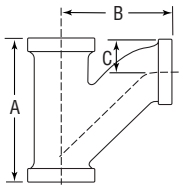
Size		A		B		Weight			
						black		galv.	
NPS	DN	in	mm	in	mm	lbs	kg	lbs	kg
1½	40	3⅞	98	1¹⁵⁄₁₆	49	2.6	1.2	2.7	1.2
2	50	4½	114	2¼	57	4.7	2.1	4.8	2.2

Reducing Tee Figure 723◊



Size						A		B		Weight			
										black		galv.	
NPS	DN	NPS	DN	NPS	DN	in	mm	in	mm	lbs	kg	lbs	kg
2	50	2	50	1½	40	4¹⁄₁₆	103	2³⁄₁₆	56	3.8	1.7	—	—

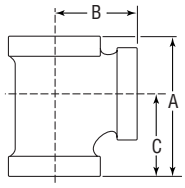
Y-branch 90° Long Turn Figure 730◊



Size		A		B		C		Weight			
								black		galv.	
NPS	DN	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
1½	40	5⅜	137	4⅛	105	1¼	32	4.4	2.0	—	—
2	50	7	178	5¼	133	1¾	44	6.7	3.0	6.7	3.1
3	80	9⅞	251	7½	191	2⅜	60	16	7.4	—	—
4	100	13	330	9⅞	251	3⅛	79	33	15	—	—

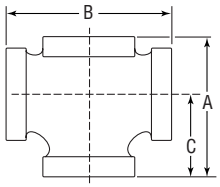
◊ inlets tapped, pitched ¼ *(6mm)* inch to the foot, Inlets of reducing fittings are always the smallest openings.

Sanitary Tees 90° Reducing Short Turn Figure 727◊



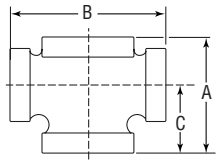
Size		A		B		C		Weight			
								black		galv.	
NPS	DN	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
2 x 2 x 1½	50 x 50 x 40	4⅝	117	2 15/16	75	2 11/16	68	4.2	1.9	4.3	2.0
2 x 1½ x 2	50 x 40 x 50	5 3/16	132	3 1/16	78	3 1/16	78	4.8	2.2	–	–
2 x 1½ x 1½	50 x 40 x 40	4⅝	117	2 15/16	75	2 11/16	68	4.3	2.0	–	–

Sanitary Tees 90° Double Short Turn Figure 728◊



Size		A		B		C		Weight			
								black		galv.	
NPS	DN	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
1½	40	4¼	108	5	127	2½	64	4.5	2.1	4.6	2.1
2	50	5 3/16	132	6⅛	156	3 1/16	78	6.1	2.8	—	—

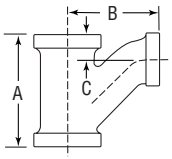
Sanitary Tee 90° Reducing Double Short Turn Figure 729◊



Size		A		B		C		Weight	
								black	
NPS	DN	in	mm	in	mm	in	mm	lbs	kg
2 x 1½	50 x 40	4⅝	117	5⅞	149	2 11/16	68	5.8	2.6

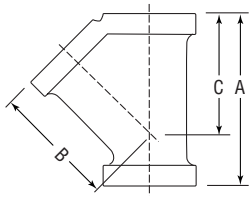
◊inlets tapped, pitched ¼ *(6mm)* inch to the foot
Inlets of reducing fittings are always the smallest openings.

Y-branch 90° Reducing Long Turn Figure 731◊



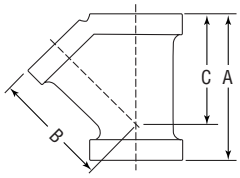
Size		A		B		C		Weight			
								black		galv.	
NPS	DN	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
2 x 2 x 1½	50 x 50 x 40	5¾	146	4⅜	111	1 5/16	24	5.2	2.4	5.3	2.4

Y-branch 45° Figure 734



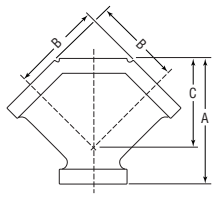
Size		A		B		C		Weight			
								black		galv.	
NPS	DN	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
1½	40	5½	140	3⅝	92	3⅝	92	4.0	1.8	4.1	1.9
2	50	6½	165	4⅜	111	4⅜	111	5.6	2.5	5.7	2.6
3	80	9	229	6 3/16	157	6 3/16	157	12	5.4	13	5.9
4	100	10⅞	276	7 11/16	195	7 11/16	195	25	11	25	11

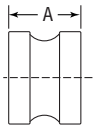
Y-branch 45° Reducing Figure 735

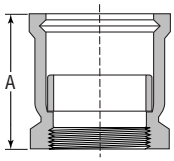


Size		A		B		C		Weight			
								black		galv.	
NPS	DN	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
2 x 2 x 1½	50 x 50 x 40	5⅞	149	4⅛	105	4 1/16	103	4.8	2.2	4.9	2.2
3 x 3 x 2	80 x 80 x 50	7⅜	187	5¾	146	5 5/16	135	10	4.6	11	4.8
4 x 4 x 3	100 x 100 x 80	9¼	235	7 3/16	183	6⅞	175	21	9	—	—

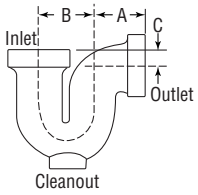
Cast Iron Drainage Fittings

45° Double Y-branch Figure 736	Size		A		B		C		Weight black	
	NPS	DN	in	mm	in	mm	in	mm	lbs	kg
	1½	40	5½	140	3⅝	92	3⅝	92	5.1	2.3

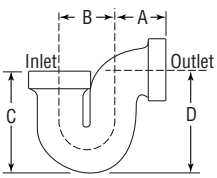
Coupling Figure 753	Size		A		Weight black	
	NPS	DN	in	mm	lbs	kg
	1½	40	3⅜	86	1.8	0.79

Tucker Connection Figure 744+	Size		A		Weight			
					black		galv.	
	NPS	DN	in	mm	lbs	kg	lbs	kg
	1½	40	4	102	4.0	1.8	—	—
	2	50	4½	114	5.4	2.4	5.6	2.5
	3	80	4¾	121	9.3	4.2		
	4	100	6 13/16	174	20	9.1	—	—

+Size 4" *(100DN)* only furnished with loose ring on request

P-Trap Figure 752	Size		A		B		C		Clean Out		Water Seal		Weight			
													black		galv.	
	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
	1½	40	2⅛	54	2¼	57	⅞	22	1	25	2	51	4.7	2.1	—	—
	2	50	2 9/16	65	2¾	70	⅞	22	1	25	2	51	7.2	3.3	7.3	3.3
	3	80	3⅜	86	3¾	95	1 3/16	30	1¼	32	2½	64	17	7.7	18	7.9
	4	100	4¼	108	5	127	1½	38	2	51	2½	64	31	14	32	14

Cleanout plug not included
Outlets tapped, pitched .25"/Ft. *(21mm/meter)*

Bath P-Trap Figure 754	Size		A		B		C		D		Water Seal		Weight black	
	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
	1½	40	2⅛	54	2⅜	60	4⅜	111	4⅝	117	2	51	3.9	1.8
	2	50	2½	64	2 13/16	73	5 5/16	135	5 5/16	135	2	51	6.3	2.8

Outlets tapped, pitched .25"/Ft. *(21mm/meter)*

Cast Iron Flanged Fittings
Class 125, Standard

Specifications

All standard or "Class 125" Cast Iron Flanged Fittings in sizes listed are made to ASME and are marked 125 for pipe sizes 12 NPS *(300 DN)* and smaller; 100 for pipe sizes 14 NPS *(350 DN)* and larger; and have plain faces. Unless otherwise specified, cast iron flanges and fittings are drilled and faced in accordance with ASME B 16.1.

Anvil fittings in this section, up to 16 NPS *(400 DN)* inclusive, are included in the "List of Inspected Fire Protection Equipment and Materials" issued by the Underwriters' Laboratories, Inc.

Coating

Flanged fittings are available both black and galvanized. Consult a Anvil representative for available sizes.

Sizes

Size of all fittings scheduled indicates nominal inside diameter of ports. standard reducing elbows carry the same dimensions center-to-face as regular elbows of largest straight size.Sizes 18, 20 and 24 NPS *(450, 500 & 600 DN)* reducing on the outlet in the following sizes are to short body pattern and are to the dimensions shown as follows: All tees, crosses and laterals reducing on the run only have the same center-to-face and face-to-face dimensions as a straight fitting of the size of the largest opening. Sizes 16 NPS *(400 DN)* and smaller reducing on the outlet have same dimensions as a straight fitting of the size of the largest opening.

Reducing Tees and Reducing Crosses

Nominal Pipe Size		Size of Outlet and Smaller		Center to Face Run		Center to Face Outlet or Side Outlet	
NPS	DN	in	mm	in	mm	in	mm
18	450	12	305	13	330	15½	394
20	500	14	356	14	356	17	432
24	600	16	406	15	381	19	483

Reducing Laterals

Nominal Pipe Size		Size of Outlet and Smaller		Center to Face Run		Center to Face Branch	
NPS	DN	in	mm	in	mm	in	mm
18	450	8	203	25	635	27½	699
20	500	10	254	27	686	29½	749
24	600	12	305	31½	800	34½	876

All Reducing Fittings in the sizes 18, 20 and 24 NPS *(450, 500 & 600 DN)* can also be supplied to Straight Size dimensions if specified. Prices on application.

To order reducing companion flanges, specify threaded or reduced size first, then the outside diameter of flange wanted. For instance, if a reducing flange is required to connect a 5-inch *(127mm)* pipe to an 8-inch *(203mm)* flanged valve or fitting having a 13½-inch o.d. *(343mm)* flange, order: 5 x 13½-inch *(127 x 343mm)* standard reducing flange.

Dimensions

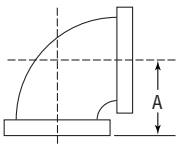
Bolt holes, for bolts smaller than 1¾ inches *(44mm)* in diameter are drilled ⅛ inch larger than bolt diameter; for bolts 1¾ inch *(44mm)* and larger, bolt holes are ¼ inch *(6mm)* larger than bolt diameter. Bolt holes straddle the center line. Bolt holes are spot faced on order only.

Tolerances

An inspection limit of plus or minus 1/32 inch *(1mm)* shall be allowed on all center to contact surface dimensions for sizes up to and including 10 NPS *(250 DN)*; plus or minus 1/16 inch *(2mm)*on sizes larger than 10 NPS *(250 DN)*. Inspection limit of plus or minus 1/16 inch *(2mm)* shall be allowed on all contact surface to contact surface dimensions for sizes up to and including 10 NPS*(250 DN)*; plus or minus ⅛ inch *(3mm)* on sizes larger than 10 NPS *(250 DN)*.The largest opening in the fitting governs the tolerance to be applied to all openings.

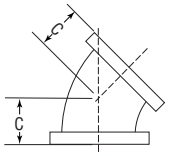
- ❑ Patterns are designed to produce castings having the wall thicknesses given in the tables. The wall thicknesses of the castings at no point shall be less than 87.5% of the dimensions given.

90° Straight Elbow
Figure 801



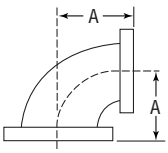
Size		A		Flange Diam.		Thickness				Weight	
						Min. Flange		Wall			
NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg
1½	40	4	102	5	127	9/16	14	5/16	8	9.0	4.1
2	50	4½	114	6	152	5/8	16	5/16	8	14	6.4
2½	65	5	127	7	178	11/16	17	5/16	8	19	8.6
3	80	5½	140	7½	191	¾	19	⅜	10	24	11
3½	90	6	152	8½	216	13/16	22	7/16	11	31	14
4	100	6½	165	9	229	15/16	24	½	13	41	19
5	125	7½	191	10	254	15/16	24	½	13	52	24
6	150	8	203	11	279	1	25	9/16	14	68	31
8	200	9	229	13½	343	1⅛	29	⅝	16	110	50
10	250	11	279	16	406	1 3/16	30	¾	19	175	79
12	300	12	305	19	483	1¼	32	13/16	23	250	113

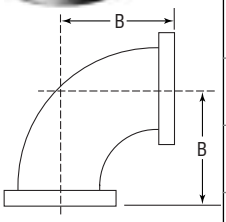
45° Straight Elbow
Figure 802

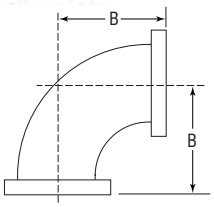


Size		A		Flange Diam.		Thickness				Weight	
						Min. Flange		Wall			
NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg
1½	40	2¼	57	5	127	9/16	14	5/16	8	8.0	3.6
2	50	2½	64	6	152	5/8	16	5/16	8	12	5.4
2½	65	3	76	7	178	11/16	17	5/16	8	17	7.7
3	80	3	76	7½	191	¾	19	⅜	10	20	9.1
3½	90	3½	89	8½	216	13/16	22	7/16	11	27	12
4	100	4	102	9	229	15/16	24	½	13	36	16
5	125	4½	114	10	254	15/16	24	½	13	45	20
6	150	5	127	11	279	1	25	9/16	14	60	27
8	200	5½	140	13½	343	1⅛	29	⅝	16	94	43
10	250	6½	165	16	406	1 3/16	30	¾	19	145	66
12	300	7½	191	19	483	1¼	32	13/16	23	220	100

Cast Iron Flanged Fittings
Class 125, Standard

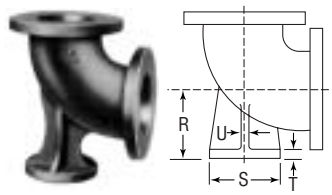
Taper Reducing Elbow Figure 803	Size				A		Weight	
	NPS	DN	NPS	DN	in	mm	lbs	kg
	2½	65	2	50	5	127	18	8.2
	3	80	2	50	5½	140	19	8.6
			2½	65			22	10
	4	100	2	50	6½	165	29	13
			2½	65			31	14
			3	80			33	15
	5	125	3	80	7½	191	40	18
			4	100			48	22
	6	150	3	80	8	203	47	21
			4	100			56	25
			5	125			60	27
	8	200	4	100	9	229	77	35
			5	125			82	37
			6	150			90	41
	10	250	6	150	11	279	125	57
			8	200			150	68
	12	300	6	150	12	305	165	75
			8	200			190	86
			10	250			220	100

Long Radius Elbow Reducing Figure 804R	Reducing Size		B		Weight	
	NPS	DN	in	mm	lbs	kg
	3 x 2	80 x 50	7¾	197	23	10
	4 x 3	100 x 80	9	229	46	21
	5 x 4	125 x 100	10¼	260	58	26
	6 x 4	150 x 100	11½	292	78	35
	6 x 5	150 x 125			81	37
	8 x 6	200 x 150	14	356	130	59
	10 x 8	250 x 200	16½	419	205	93

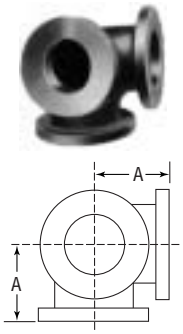
Long Radius Elbow Straight Figure 804	Size		B		Flange Diam.		Thickness				Weight	
							Flange (min.)		Wall			
	NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg
	2	50	6½	165	6	152	5/8	16	5/16	8	16	7.3
	2½	65	7	178	7	178	11/16	17	5/16	8	23	10
	3	80	7¾	197	7½	191	¾	19	⅜	10	28	13
	4	100	9	229	9	229	15/16	24	½	13	48	22
	6	150	11½	292	11	279	1	25	9/16	14	85	39
	8	200	14	356	13½	343	1⅛	29	⅝	16	145	66
	10	250	16½	419	16	406	1 3/16	30	¾	19	230	104
	12	300	19	483	19	483	1¼	32	13/16	22	350	159

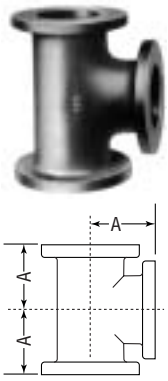
Cast Iron Flanged Fittings
Class 125, Standard

ANVIL® INTERNATIONAL, INC.

Base Elbow Figure 805	Size		Center to Base R		Dia. of Round Base S		Thickness Base T		Thickness Rubs U		Size of Supporting Pipe for Base		Weight	
	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
	3	80	4⅞	124	5	127	9/16	14	½	13	2	51	36	16
	4	100	5½	140	6	152	⅝	16	½	13	2	51	59	27
	5	125	6¼	159	7	178	11/16	17	⅝	16	2½	64	76	34
	6	150	7	178	7	178	11/16	17	⅝	16	2½	64	110	50
	8	200	8⅜	213	9	229	15/16	24	⅞	22	4	102	158	72
	10	250	9¾	248	9	229	15/16	24	⅞	22	4	102	224	102
	12	300	11¼	286	11	279	1	25	1	25	6	152	324	147

Bases, when drilled, should be drilled to the template of the flange of the supporting pipe size.
Size of base determined by size of largest opening of fitting. Bases will be furnished not faced and not drilled unless otherwise specified.
When ordered faced, dimensions "R" and "T" will be slightly less than shown in table.

Side Outlet Elbow Figure 808	Size		A		Flange Dia.		Thickness Flange		Thickness Wall		Weight	
	NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg
	4	100	6½	165	9	229	15/16	24	½	13	59	27
	6	150	8	203	11	279	1	25	9/16	14	96	44
	8	200	9	229	13½	343	1⅛	29	⅝	16	150	68

Straight Tee Figure 811	Size		A		AA		Flange Dia.		Thickness Flange		Thickness Wall		Weight	
	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
	1½	40	4	102	8	203	5	127	9/16	14	5/16	8	15	6.8
	2	50	4½	114	9	229	6	152	⅝	16	5/16	8	21	10
	2½	65	5	127	10	254	7	178	11/16	17	5/16	8	30	14
	3	80	5½	140	11	279	7½	191	¾	19	⅜	10	37	17
	4	100	6½	165	13	330	9	229	15/16	24	½	13	64	29
	5	125	7½	191	15	381	10	254	15/16	24	½	13	81	37
	6	150	8	203	16	406	11	279	1	25	9/16	14	105	48
	8	200	9	229	18	457	13½	343	1⅛	29	⅝	16	165	75
	10	250	11	279	22	559	16	406	1 3/16	30	¾	19	270	122
	12	300	12	305	24	610	19	483	1¼	32	13/16	22	380	172

Cast Iron Flanged Fittings
Class 125, Standard

Reducing Tee: Figure 812

4 NPS *(100 DN)*
6 NPS *(150 DN)* — 5 NPS *(125 DN)*
Read as:
6 x 5 x 4
(150 x 125 x 100DN)

Dimentions for reducing tees for sizes listed 1 NPS *(25 DN)* and smaller have same center to face dimensions as straight size fittings corresponding to the largest opening. Dimentions of sizes not listed furnished on request.

Size						Weight	
NPS	*DN*	NPS	*DN*	NPS	DN	LBS	*kg*
2½	50[15]	2½	65	2	50	28	13
3	80	2	50	3	80	33	15
		2½	65	3	80	35	16
		3	80	2	50	34	15
				1½	40	32	15
				2½	65	35	16
				4	100	56	25
4	100	2	50	4	100	50	23
		2½	65	2½	65	49	22
				4	100	56	25
		3	80	3	80	53	24
				4	100	59	27
		4	100	1½	40	50	23
				2	50	51	23
				2½	65	56	25
				3	80	57	26
				6	150	88	40
5	125	4	100	4	100	73	33
				5	125	80	36
		5	125	2½	65	66	30
				3	80	71	32
				4	100	80	36
				6	150	102	46
6	150	2	50	6	150	83	38
		3	80	3	80	80	36
				4	100	85	39
				6	150	91	41
		4	100	3	80	86	39
				4	100	88	40
				6	150	94	43
		5	125	4	100	91	41
				5	125	102	46
		6	150	2	50	86	39
				2½	65	90	41
				3	80	92	42
				4	100	97	44
				5	125	105	48
				8	200	142	64

Reducing Tee: Figure 812 (cont.)

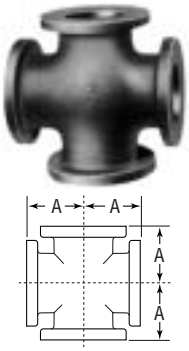
4 NPS *(100 DN)*
6 NPS *(150 DN)* — 5 NPS *(125 DN)*
Read as:
6 x 5 x 4
(150 x 125 x 100DN)

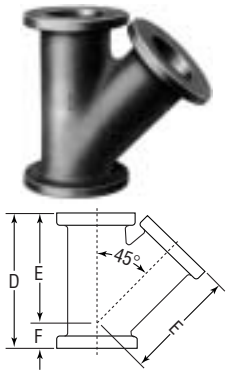
Dimentions for reducing tees for sizes listed 1 NPS *(25 DN)* and smaller have same center to face dimensions as straight size fittings corresponding to the largest opening. Dimentions of sizes not listed furnished on request.

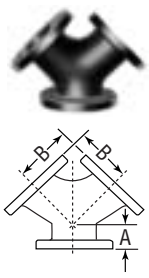
Size						Weight	
NPS	*DN*	NPS	*DN*	NPS	DN	LBS	*kg*
8	200	4	100	6	150	140	64
				8	200	146	66
		5	125	8	200	149	68
		6	150	4	100	125	57
				6	150	144	65
				8	200	159	72
		8	200	3	80	140	64
				4	100	143	65
				5	125	149	68
				6	150	156	71
				10	250	235	107
				12	300	275	125
10	250	6	150	6	150	342	155
		8	200	6	150	220	100
				8	200	232	105
				10	250	262	119
		10	250	3	80	218	99
				4	100	225	102
				5	125	235	107
				6	150	240	109
				8	200	262	119
				12	300	340	154
12	300	8	200	8	200	298	135
				12	300	340	154
		10	250	6	150	310	141
				8	200	320	145
				10	250	340	154
				12	300	365	166
		12	300	4	100	291	132
				5	125	295	134
				6	150	323	147
				8	200	330	150
				10	250	362	164

Cast Iron Flanged Fittings
Class 125, Standard

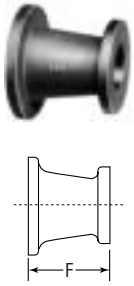
ANVIL INTERNATIONAL, INC.

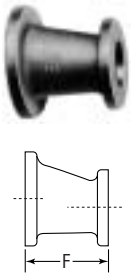
Cross Figure 821	Size		A		AA		Flange Diameter		Min. Flange Thickness		Wall Thickness		Weight	
	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
	2	50	4½	114	9	225	6	152	5/8	16	5/16	8	28	13
	2½	65	5	127	10	250	7	178	11/16	17	5/16	8	39	18
	3	80	5½	140	11	275	7½	191	3/4	19	3/8	10	48	22
	4	100	6½	165	13	325	9	229	15/16	24	1/2	13	82	37
	5	125	7½	191	15	375	10	254	15/16	24	1/2	13	105	48
	6	150	8	203	16	400	11	279	1	25	9/16	14	135	61
	8	200	9	229	18	450	13½	343	1⅛	29	5/8	16	210	95
	10	250	11	279	22	550	16	406	1⅜	30	3/4	19	330	150
	12	300	12	305	24	600	19	483	1¼	32	13/16	22	470	213

Lateral Figure 823	Size		Face to Face D		Center to Face E		Center to Face F		Flange Diameter		Min. Flange Thickness		Wall Thickness		Weight	
	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
	2	50	10½	267	8	203	2½	64	6	152	5/8	16	5/16	8	25	11
	2½	65	12	305	9½	241	2½	64	7	178	11/16	17	5/16	8	36	16
	3	80	13	330	10	254	3	76	7½	191	3/4	19	3/8	10	44	20
	4	100	15	381	12	305	3	76	9	229	15/16	24	1/2	13	75	34
	5	125	17	432	13½	343	3½	89	10	254	15/16	24	1/2	13	96	44
	6	150	18	457	14½	368	3½	89	11	279	1	25	9/16	14	125	57
	8	200	22	559	17½	445	4½	114	13½	343	1⅛	29	5/8	16	210	95

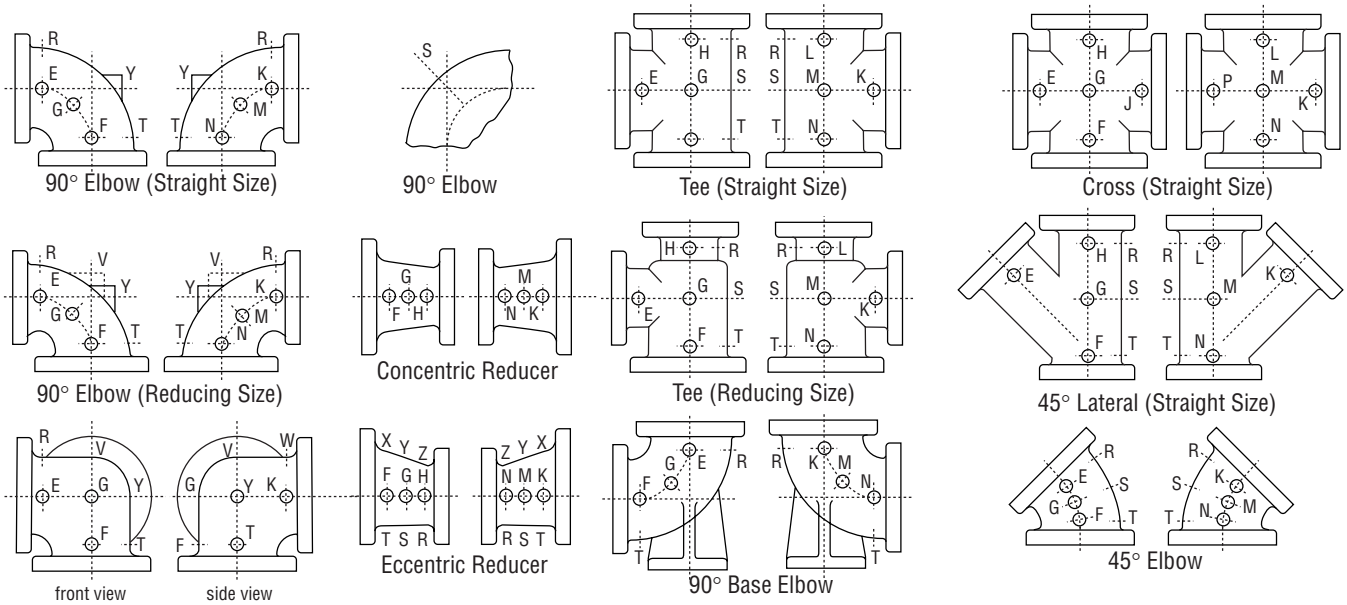
True Y Figure 810	Size		A		B		Flange Diameter		Min. Flange Thickness		Wall Thickness		Weight	
	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
	4	100	3	76	6½	165	9	229	15/16	24	1/2	13	60	27
	6	150	3½	89	8	203	11	279	1	25	9/16	14	101	46
	8	200	4½	114	9	229	13½	343	11/16	17	5/8	16	154	70

Cast Iron Flanged Fittings
Class 125, Standard

Concentric Reducer Figure 825	Size				F		Weight	
	NPS	DN	NPS	DN	in	mm	lbs	kg
	2	50	1½	40	5½	140	12	5.4
	2½	65	1½	40	5½	140	14	6.4
			2½	65	5½	140	12	5.4
	3	80	1½	40	6	152	14	6.4
			2	50			16	7.3
			2½	65			19	8.6
	4	100	2	50	7	178	24	11
			2½	65			26	12
			3	80			28	13
			3½	90			31	14
	5	125	2½	65	8	203	31	14
			3	80			32	15
			4	100			39	18
	6	150	2	50	9	229	34	15
			2½	65			37	17
			3	80			39	18
			4	100			47	21
			5	125			50	23
	8	200	4	100	11	279	66	30
			5	125			71	32
			6	150			77	35
	10	250	4	100	12	305	85	39
			5	125			90	41
			6	150			100	45
			8	200			120	54
	12	300	6	150	14	356	140	64
			8	200			155	70
			10	250			180	82

Eccentric Reducer Figure 826	Size				F		Weight	
	NPS	DN	NPS	DN	in	mm	lbs	kg
	3	80	2	50	6	152	16	7.3
			2½	65			22	10
	4	100	2	50	7	178	28	13
			2½	65			28	13
			3	80			28	13
	5	125	4	100	8	203	39	18
	6	150	3	80	9	229	47	21
			4	100			50	23
			5	125			51	23
	8	200	4	100	11	279	71	32
			5	125			76	34
			6	150			77	35
	10	250	6	150	12	305	107	49
			8	200			120	54
	12	300	8	200	14	356	155	70
			10	250			180	82

Method of designating location of tapped holes for drains when specified
Class 125 (standard) and Class 250 (extra heavy)



Note: These sketches show two views of the same fitting and represent fittings with symmetrical shapes except for the side outlet elbow (straight sizes)

Cast Iron Flanged Fittings
Class 250, Extra Heavy

Specifications

All Extra Heavy or "Class 250" cast iron flanged fittings in sizes listed are made to ASME B16.1, are marked "250". All Class 250 Cast Iron flange fittings are faced and drilled to ASME B 16.1, unless otherwise specified.

Anvil fittings' sizes 1NPS to 10 NPS *(25 to 250 DN)* shown in this section are included in the "List of Inspected Fire Protection Equipment and Materials" issued by the Underwriters' Laboratories, Inc.

Sizes

To avoid delay in shipment, where other than sizes given are ordered, we carry in stock reducing flanges, the use of which, in connection with straight or reducing fittings carried in stock, enable us to fill orders promptly for reducing sizes where specifications will permit reduction made in this manner. The reducing flanges furnished are the same thickness as the regular companion flange of the corresponding outside diameter and will be drilled to the template corresponding to the outside diameter unless otherwise ordered. For fittings reduced in this manner, please specify "reduce by flanges if necessary."

To order reducing companion flanges, specify threaded or reduced size first and follow with outside diameter. For instance, if a reducing flange is required to connect a 4-inch *(100 DN)* pipe to a 6-inch *(150 DN)* valve or fitting having a 12½" *(315 DN)* flange, order a 4 NPS x 12½ NPS *(100 x 315 DN)* reducing flange.

Coating

Flanged fittings are available in both black and galvanized. Consult a Anvil representative for available sizes.

Dimensions

All Extra Heavy or "Class 250" cast iron flanged fittings have a raised face (for gaskets) 1/16-inch *(2mm)* high inside of bolt holes. For bolts 1 1/8-inch *(29mm)* smaller, the bolt hole is drilled 1/8-inch *(3mm)* larger than the diameter of bolt. Bolt holes straddle the center line and the steel bolts with square heads and hex nuts are recommended.

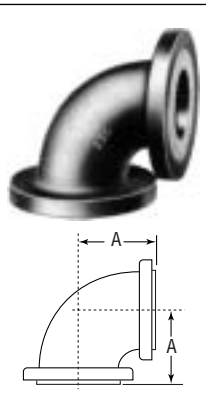
Reducing elbows have same center to face dimensions as regular elbows of the largest straight size.

Reducing tees NPS 16 *(400 DN)* and smaller have same the center-to-face and face-to-face dimensions as a straight fitting of the size of the largest opening. Dimensions for larger sizes furnished upon request.

Tolerances

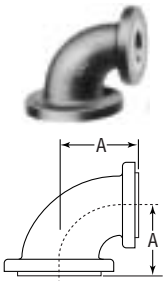
Inspection limit of plus or minus 1/32-inch *(1mm)* is allowed on all center to contact surface dimensions for sizes up to and including 10 NPS *(250 DN)* and plus or minus 1/16 inch *(2mm)* on sizes larger than 10 NPS *(250 DN)*. Inspection limit of plus or minus 1/16 inch *(2mm)* is allowed on all contact surface to contact surface dimensions for sizes up to and including 10 NPS *(250 DN)* and plus or minus 1/8 inch *(3mm)* on sizes larger than 10 NPS. *(250 DN)*

- NOTE: Patterns are designed to produce castings having the wall thicknesses given in the tables. The wall thicknesses of the castings at no point shall be less than 87.5% of the dimensions given.

90° Elbows Figure 831	Size		A		Flange Diameter		Flange Thickness		Dia. of Raised Face		Wall Thickness of Body		Weight	
	NPS	*DN*	*in*	*mm*	*in*	*mm*	*in*	*mm*	*in*	*mm*	*in*	*mm*	*lbs*	*kg*
	2	50	5	127	6½	165	7/8	22	4 3/16	106	7/16	11	20	9.1
	2½	65	5½	140	7½	191	1	25	4 15/16	125	½	13	30	14
	3	80	6	152	8¼	210	1 1/8	29	5 11/16	144	9/16	14	40	18
	4	100	7	178	10	254	1¼	32	6 15/16	176	5/8	16	65	29
	5	125	8	203	11	279	1 3/8	35	8 5/16	211	11/16	17	87	39
	6	150	8½	216	12½	318	1 7/16	37	9 11/16	246	¾	19	115	52
	8	200	10	254	15	381	1 5/8	41	11 15/16	303	13/16	22	185	84
	10	250	11½	292	17½	445	1 7/8	48	14 1/16	357	15/16	24	290	132
	12	300	13	330	20 ½	508	2	51	16 7/16	418	1	25	410	186

Cast Iron Flanged Fittings
Class 250, Extra Heavy

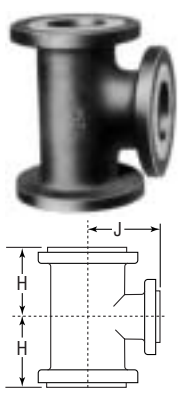
Elbow Figure 832	Size		C		Flange Diameter		Flange Thickness		Diam. of Raised Face		Wall Thick. of Body (min.)		Weight	
	NPS	Dn	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
	2	50	3	76	6½	165	⅞	22	4 3/16	106	7/16	11	18	8.2
	2½	65	3½	89	7½	191	1	25	4 15/16	125	½	13	28	13
	3	80	3½	89	8¼	210	1⅛	29	5 11/16	144	9/16	14	35	16
	4	100	4½	114	10	254	1¼	32	6 15/16	176	⅝	16	58	26
	5	125	5	127	11	279	1¼	32	8 5/16	211	1 1/16	27	76	34
	6	150	5½	140	12½	318	1 7/16	37	9 11/16	246	¾	19	105	48
	8	200	6	152	15	381	1⅝	41	11 15/16	303	1 3/16	30	155	70
	10	250	7	178	17½	445	1⅞	48	14 1/16	357	1 5/16	33	240	109
	12	300	8	203	20 ½	508	2	51	16 7/16	418	1	25	340	154

Taper Reducing Elbow Figure 833	Size				A		Weight	
	NPS	Dn	NPS	DN	in	mm	lbs	kg
	4	100	3	80	7	178	52	24
			2½	65			48	22
	5	125	4	100	8	203	78	35
			3	80			65	29
	6	150	5	125	8½	216	100	45
			4	100			93	42
	8	200	6	150	10	254	155	70
			5	125			100	45
	10	250	8	200	11½	292	240	109
			6	150			210	95

Tee, Reducing on Run or Outlet Figure 842	Size Reducing				Weight	
	NPS	DN	NPS	DN	lbs	kg
	3	80	2½	65	55	25
			2	50	50	23
	4	100	2	50	77	35
			2½	65	83	38
			3	80	84	38
	5	125	4	100	125	57
	6	150	3	80	148	67
			4	100	160	73
	8	200	4	100	229	104
			6	150	257	117
	10	250	6	150	369	167
			8	200	376	171

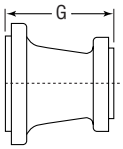
In describing tees, the run is first named, then the outlet, thus:

Dimensions for reducing tees for sizes listed 16 NPS *(400 DN)* and smaller have same center to face dimension as straight size fittings corresponding to the largest opening. Dimensions of sizes not listed furnished on request.

Straight Tees Figure 841	Size		Min. Inside Diam. of Fitting		J		HH		Flange Diam.		Min. Flange Thickness		Diam. of Raised Face		Min. Wall Thickness of Body		Weight	
	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
	2	50	2	51	5	127	10	254	6½	165	⅞	22	4 3/16	106	7/16	11	32	15
	2½	65	2½	64	5½	140	11	279	7½	191	1	25	4 15/16	125	½	13	46	21
	3	80	3	76	6	152	12	305	8¼	210	1⅛	29	5 11/16	144	9/16	14	58	26
	4	100	4	102	7	178	14	356	10	254	1¼	32	6 15/16	176	⅝	16	99	45
	5	125	5	127	8	203	16	406	11	279	1⅜	35	8 5/16	211	11/16	17	135	61
	6	150	6	152	8½	216	17	432	12½	318	1 7/16	37	9 11/16	246	¾	19	180	82
	8	200	8	203	10	254	20	508	15	381	1⅝	41	11 15/16	303	13/16	22	280	127
	10	250	10	254	11½	292	23	584	17½	445	1⅞	48	14 1/16	357	15/16	24	430	195
	12	300	12	305	13	330	26	660	20½	521	2	51	16 7/16	418	1	25	620	281

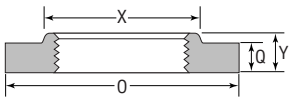
Cast Iron Flanged Fittings
Class 250, Extra Heavy

ANVIL INTERNATIONAL, INC.

Concentric Reducer Figure 855	Size				G		Weight	
	NPS	Dn	NPS	DN	in	mm	lbs	kg
	2½	65	2	50	5½	140	24	11
	3	80	2	50	6	152	25	11
			2½	65			29	13
	4	100	2	50	7	178	36	16
			2½	65			40	18
			3	80			44	20
	5	125	2½	65	8	203	50	23
			3	80			54	24
			4	100			63	29
	6	150	2½	65	9	229	63	29
			3	80			67	30
			4	100			77	35
			5	125			85	39
	8	200	4	100	11	279	105	48
			5	125			115	52
			6	150			130	59
	10	250	6	150	12	305	170	77
			8	200			190	86

Iron Flanges - Class 125, standard

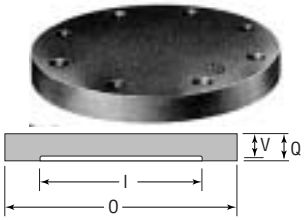
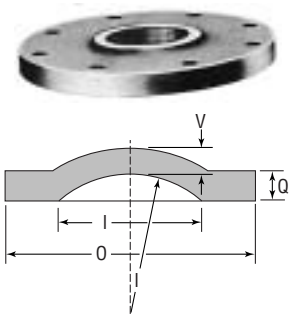
Class 125 (standard) iron flanges are manufactured to American National standard ASME B16.1. Malleable iron flanges are manufactured to ASTM A197.

Companion Flange Cast Iron: Figure 1011 Malleable: Figure 1035	Pipe Size		Diam. of Flange O		Min. Flange Thickness Q		Min. Diam. of Hub X		Min. Length Through Hub Y		Weight			
											Cast Iron		Malleable	
	NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
Showing Hub	¾	20	3⅞	98	7/16	11	1¾	44	⅝	16	1.5	0.68	—	—
	1	25	4¼	108	7/16	11	1 15/16	49	11/16	17	1.8	0.79	—	—
	1¼	32	4⅝	117	½	13	2 5/16	59	13/16	22	2.0	0.91	—	—
	1½	40	5	127	9/16	14	2 9/16	65	⅞	22	2.3	1.0	2.3	1.0
	2	50	6	152	⅝	16	3 1/16	78	1	25	4.0	1.8	4.0	1.8
	2½	65	7	178	11/16	17	3 9/16	90	1⅛	29	6.0	2.7	6.0	2.7
	3	80	7½	191	¾	19	4¼	108	1 3/16	30	7.6	3.5	7.6	3.5
Showing Plain Face	3½	90	8½	216	13/16	22	4 13/16	124	1¼	32	9.0	4.1	—	—
	4	100	9	229	15/16	24	5 5/16	135	1 5/16	33	12	5.3	12	5.3
	5	125	10	254	15/16	24	6 7/16	164	1 7/16	37	14	6.4	14	6.4
	6	150	11	279	1	25	7 9/16	192	1 9/16	40	17	7.5	17	7.5
	8	200	13½	343	1⅛	29	9 11/16	246	1¾	44	26	12	26	12
	10	250	16	406	1 3/16	30	11 15/16	303	1 15/16	49	38	17	—	—
	12	300	19	483	1¼	32	14 1/16	357	2 3/16	56	51	23	—	—
	14 O.D.	350 O.D.	21	533	1⅜	35	15⅝	397	2¼	57	80	36	—	—
	16 O.D.	400 O.D.	23½	597	1 7/16	37	17½	445	2½	64	100	45	—	—
	18 O.D.	450 O.D.	25	635	1 9/16	40	19⅝	498	2 11/16	68	106	48	—	—
	20 O.D.	500 O.D.	27½	699	1 11/16	43	21¾	552	2⅞	73	128	58	—	—
	24 O.D.	600 O.D.	32	813	1⅞	48	26	660	3¼	83	202	92	—	—

When ordering companion flanges always give outside diameter as well as nominal pipe size.

Iron Flanges
Class 125, Standard

Class 125 (standard) iron flanges are manufactured to American National standard ASME B16.1. Malleable iron flanges are manufactured to ASTM A197.

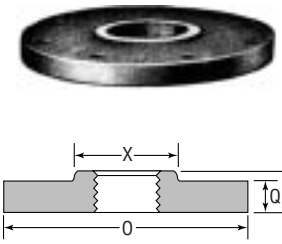
Blind Flange Cast Iron: Figure 1018	Pipe Size I		Dia. of Flange O		Min. Flange Thickness Q		Wall Thick. V		Weight Cast Iron	
	NPS	DN	in	mm	in	mm	in	mm	lbs	kg
10 x 16 (NPS) and smaller  12 x 19 (NPS) and larger 	1	25	4¼	108	7/16	11	3/8	10	2.0	0.91
	1¼	32	4⅝	117	½	13	7/16	11	2.3	1.0
	1½	40	5	127	9/16	14	½	13	3.8	1.7
	2	50	6	152	⅝	16	9/16	14	4.0	1.8
	2½	65	7	178	11/16	17	⅝	16	6.8	3.1
	3	80	7½	191	¾	19	11/16	17	8.0	3.6
	3½	90	8½	216	13/16	22	¾	19	11	5.0
	4	100	9	229	15/16	24	⅞	22	14	6.4
	5	125	10	254	15/16	24	⅞	22	18	8.2
	6	150	11	279	1	25	15/16	24	23	10
	8	200	13½	343	1⅛	29	1 1/16	27	40	18
	10	250	16	406	1 3/16	30	1⅛	29	59	27
	12	300	19	483	1¼	32	13/16	22	88	40
	14 O.D.	350 O.D.	21	533	1⅜	35	⅞	22	115	52
	16 O.D.	400 O.D.	23½	597	1 7/16	37	1	25	160	73
	18 O.D.	450 O.D.	25	635	1 9/16	40	1 1/16	27	190	86
	20 O.D.	500 O.D.	27½	699	1 11/16	43	1⅛	29	250	113
	24 O.D.	600 O.D.	32	813	1⅞	48	1¼	32	370	168

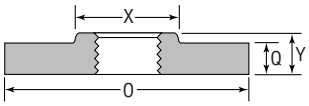
All standard blind flanges sizes 12 NPS *(300 DN)* (19 inch O.D.(475 DN O.D.)) and larger must be dished with inside radius equal to the port diameter.
When ordering blind flanges always give outside diameter.
H All Class 125 cast iron standard flanges have a flat face.

Class 125 cast iron flanges threaded for cast iron pipe Fig. 1010T	Size		Flange O.D		C.I. Pipe O.D.		Flange Thick		Length thru Hub		Weight			
											Faced		Not Faced	
	NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg	lbs	kg
Flanges drilled to ASME B16.1 Class 125 Flanges furnished threaded, drilled and faced.	3	80	7½	191	3.96	101	¾	19	1¾	44	7.5	3.4	8.0	3.6
	4	100	9	229	4.80	122	15/16	24	1 15/16	49	13	5.9	14	6.3
	6	150	11	279	6.90	175	1	25	2 3/16	56	17	7.8	19	8.4
	8	200	13½	343	9.05	230	1⅛	29	2 7/16	62	29	13	30	14
	10	250	16	406	11.10	282	1 3/16	30	2½	64	42	19	44	20
	12	300	19	483	13.20	335	1¼	32	2 13/16	73	60	27	62	28
	14	350	21	533	15.30	389	1 3/16	30	3	76	74	33	76	34
	16	400	23½	597	17.40	442	1¼	32	3¼	83	102	46	104	47
	18	450	25	635	19.50	495	1⅜	35	3 17/32	90	104	47	107	49
	20	500	27½	699	21.60	549	1½	38	3¾	95	129	59	133	60
	24	600	32	813	25.80	655	1 11/16	43	4 5/32	106	178	81	182	82

Iron Flanges
Class 125, Standard

ANVIL INTERNATIONAL, INC.

Reducing Companion Flange Cast Iron: Figure 1016	Pipe Size		Flange Dia. O		Min. Flange Thickness Q		Min. Dia. of Hub X		Min. Length Thru Hub Y		Weight Cast Iron	
	NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg
	1	25	5	127	9/16	14	1 15/16	49	11/16	17	2.8	1.2
	1 1/4	32					2 5/16	59	13/16	22	2.5	1.1
	1	25	6	152	5/8	16	1 15/16	49	11/16	17	5.0	2.3
	1 1/4	32					2 5/16	59	13/16	22	4.8	2.2
	1 1/2	40					2 9/16	65	7/8	22	4.5	2.0
	1 1/2	40	7	178	1 1/16	27	2 9/16	65	7/8	22	7.0	3.2
	2	50					3 1/16	78	1	25	6.8	3.1
	1	25	7 1/2	191	3/4	19	1 15/16	49	13/16	22	9.0	4.1
	1 1/2	40					2 9/16	65	7/8	22	8.8	4.0
	2	50					3 1/16	78	1	25	8.5	3.9
	2 1/2	65					3 9/16	90	1 1/8	29	8.0	3.6
	3	80	8 1/2	203	1 3/16	30	4 1/4	108	1 3/16	30	10.0	4.5
	1 1/2	40	9	229	1 5/16	33	2 9/16	65	1	25	15	6.7
	2	50					3 1/16	78	1	25	14	6.4
	2 1/2	65					3 9/16	90	1 1/8	29	14	6.1
	3	80					4 1/4	108	1 3/16	30	13	5.8
	3 1/2	90					4 13/16	124	1 1/4	32	12	5.4
	3	80	10	254	1 5/16	33	4 1/4	108	1 3/16	30	17	7.7
	4	100					5 5/16	135	1 5/16	33	16	7.3
	1 1/2	40	11	279	1	25	2 9/16	65	1 1/16	27	27	12
	2	50					3 1/16	78	1 1/16	27	26	12
	2 1/2	65					3 9/16	90	1 1/8	29	25	11
	3	80					4 1/4	108	1 3/16	30	23	10
	4	100					5 5/16	135	1 5/16	33	21	10
	5	125					6 7/16	164	1 7/16	37	19	8.6
	2	50	13 1/2	343	1 1/8	29	3 1/16	78	1 3/16	30	44	20
	3	80					4 1/4	108	1 3/16	30	40	18
	4	100					5 5/16	135	1 5/16	33	37	17
	5	125					6 7/16	164	1 7/16	37	34	15
	6	150					7 9/16	192	1 9/16	40	31	14
	6	150	16	406	1 3/16	30	7 9/16	192	1 9/16	40	53	24
	8	200					9 11/16	246	1 3/4	44	50	23
	6	150	19	483	1 1/4	32	7 9/16	192	1 9/16	40	88	40
	8	200					9 11/16	246	1 3/4	44	81	37
	10	250					11 15/16	303	1 15/16	49	72	33

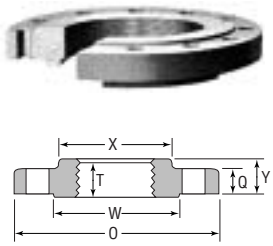


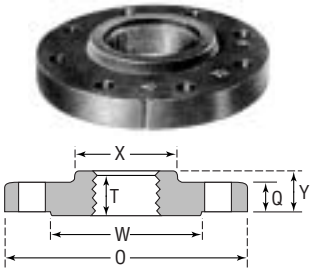
To order reducing companion flanges, specify threaded or reduced size first, then the outside diameter of desired flange. For instance, if a reducing flange is required to connect a 5 NPS *(125 DN)* pipe to an 8 NPS *(200 DN)* valve or fitting having a 13½ inch *(338 DN)* O.D. flange, order 5 NPS x 13½ inch *(125 x 338 DN)* reducing flange.

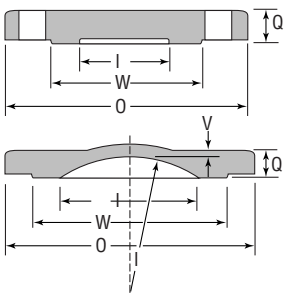
ΔStock galvanized

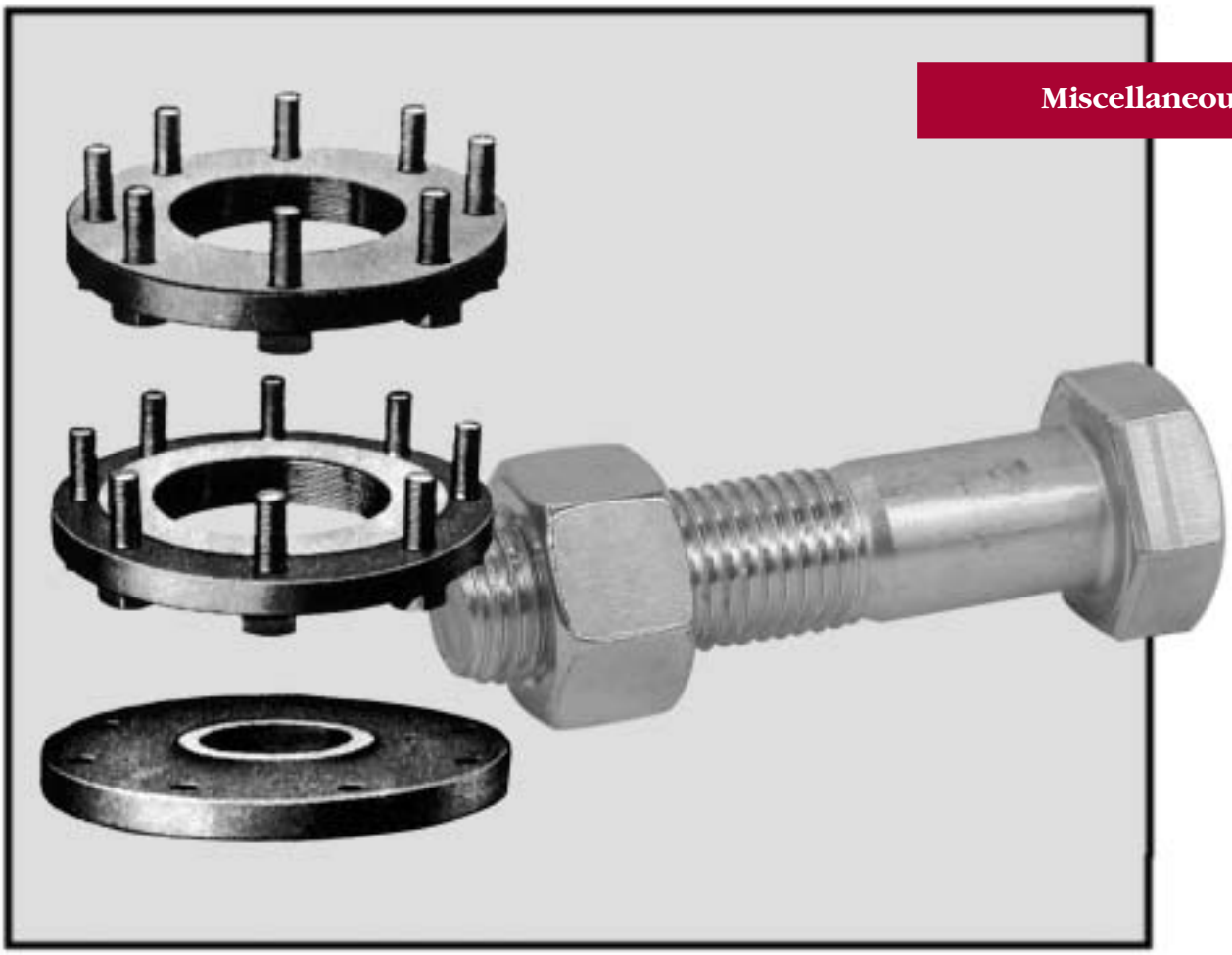
Iron Flanges
Class 250, Extra Heavy

Class 250 (extra heavy) iron flanges are manufactured to American National standard: dimensions, ASME B16.1; threads ASME B1.20.1

Companion Flange Cast Iron: Figure 1025	Pipe Size		Flange Diameter O		Min. Flange Thickness Q		Min. Hub Diameter x		Min. Length Through Hub - Y		Min Length of Threads T		Diam of Raised Face W (in)		Weight Cast Iron	
	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
	1¼	32	5¼	133	¾	19	2½	64	1	25	0.76	19	3 1/16	78	3.8	1.7
	1½	40	6⅛	156	13/16	22	2¾	70	1⅛	29	0.87	22	3 9/16	90	5.8	2.6
	2	50	6½	165	⅞	22	3 5/16	84	1¼	32	1.00	25	4 3/16	106	6.5	2.9
	2½	65	7½	191	1	25	3 15/16	100	1 7/16	37	1.14	29	4 15/16	125	9.5	4.3
	3	80	8¼	210	1⅛	29	4⅝	117	1 9/16	40	1.20	30	5 11/16	144	12	5.6
	3½	90	9	229	1 3/16	30	5¼	133	1⅝	41	1.25	32	6 5/16	160	16	7.3
	4	100	10	254	1¼	32	5¾	146	1¾	44	1.30	33	6 15/16	176	20	9.1
	5	125	11	279	1⅜	35	7	178	1⅞	48	1.41	36	8 5/16	211	24	11
	6	150	12½	318	1 7/16	37	8⅛	206	1 15/16	49	1.51	38	9 11/16	246	32	15
	8	200	15	381	1⅝	41	10¼	260	2 3/16	56	1.71	43	11 15/16	303	51	23
	10	250	17½	445	1⅞	48	12⅝	321	2⅜	60	1.92	49	14 1/16	357	77	35
	12	300	20½	521	2	51	14¾	375	2 9/16	65	2.12	54	16 7/16	418	103	47

Reducing Companion Flange Cast Iron Figure 1030	Pipe Size		Flange Diam. O		Min Flange Thickness Q		Min. Length Through Hub Y		Min Length of Threads T		Diam of Raised Face W		Weight Cast Iron	
	NPS	DN	in	mm	in	mm	in	mm	in	mm	in	mm	lbs	kg
	2	50	8¼	210	1⅛	29	1¼	32	1.00	25	5 11/16	144	14	6.5
	2½	65	8¼	210	1⅛	29	1 7/16	37	1.14	29	5 11/16	144	14	6.1
	3	80	10	254	1¼	32	1 9/16	40	1.20	30	6 15/16	176	23	10
	4	100	11	279	1⅜	35	1¾	44	1.30	33	8⅝	211	30	14
	4	100	12½	318	1 7/16	37	1¾	44	1.30	33	9 11/16	246	40	18
	5	125	12½	318	1 7/16	37	1⅞	48	1.41	36	9 11/16	246	36	16
	6	150	15	381	1⅝	41	1 15/16	49	1.51	38	11 15/16	303	59	27

Blind Flange Cast Iron Figure 1021	Pipe Size		Flange Dia. O		Dia. of Port I		Min. Flange Thickness Q		Min. Metal Thickness V		Weight Cast Iron	
	NPS	DN	in	mm	in	mm	in	mm	in	mm	lbs	kg
8 x 15 and smaller (200 x 375 DN)	1	25	4⅞	124	1	25	11/16	17	–	–	4.0	1.8
	1½	40	6⅛	156	1½	38	13/16	22	–	–	525	238
	2	50	6½	165	2	51	⅞	22	–	–	7.0	3.2
	2½	65	7½	191	2½	64	1	25	–	–	11	5.0
	3	80	8¼	210	3	76	1⅛	29	–	–	14	6.4
	3½	90	9	229	3½	89	1 3/16	30	–	–	19	8.6
	4	100	10	254	4	102	1¼	32	–	–	23	10
	5	125	11	279	5	127	1⅜	35	–	–	31	14
	6	150	12½	318	6	152	1 7/16	37	–	–	42	19
	8	200	15	381	8	203	1⅝	41	–	–	70	32
10 x 17½ and larger (250 x 440 DN)	10	250	17½	445	10	254	1⅞	48	15/16	24	104	47
	12	300	20½	521	12	305	2	51	1	25	145	66



All Purpose Gaskets

Full Face

Ring

Compressed Sheet Packing is a single-formula material suitable for a wide range of temperature-pressure combinations.
It is used for sealing water, steam, all oils, gases, alkalies, acids, refrigerants and hydrocarbons.
Available in eight gauges: 1/100, 1/64, 1/32, 1/16, 3/32, 1/8, 3/16, and 1/4 inch *(.2, .4, .8, 1.6, 3.1, 4.7 and 6.3mm)*.

Hex Head Bolts

When ordering, specify bolt size and length required.
Bolts are furnished in sizes 1/4", 5/16", 3/8", 7/16", 1", 1 1/8", 1 1/4",
(6.3, 7.9, 9.5, 11, 25, 29 and 32 mm) in varying lengths.
Lengths of bolts are measured from under head to extreme point.

Bolt Template for Drilling Flanged Fittings																		
Pipe Size		Flange Dia.		Min. Flange Thickness		Bolt Circle Dia.		No of bolts	Bolt Hole Dia.		Dia. of Bolt		Length of Bolt		Ring Gasket I.D.		Ring Gasket O.D.	
NPS	DN	in	mm	in	mm	in	mm		in	mm	in	mm	in	mm	in	mm	in	mm
¾	20	3⅞	98	7/16	11	2¾	70	4	⅝	16	½	13	1¾	44	1 1/16	27	2¼	57
1	25	4¼	108	7/16	11	3⅛	79	4	⅝	16	½	13	1¾	44	1 5/16	33	2⅝	67
1¼	32	4⅝	117	½	13	3½	89	4	⅝	16	½	13	2	51	1 21/32	42	3	76
1½	40	5	127	9/16	14	3⅞	98	4	⅝	16	½	13	2	51	1 29/32	48	3⅜	86
2	50	6	152	⅝	16	4¾	121	4	¾	19	⅝	16	2¼	57	2⅜	60	4⅛	105
2½	65	7	178	11/16	17	5½	140	4	¾	19	⅝	16	2½	64	2⅞	73	4⅞	124
3	80	7½	191	¾	19	6	152	4	¾	19	⅝	16	2½	64	3½	89	5⅜	137
3½	90	8½	216	13/16	22	7	178	8	¾	19	⅝	16	2¾	70	4	102	6⅜	162
4	100	9	229	15/16	24	7½	191	8	¾	19	⅝	16	3	76	4½	114	6⅞	175
5	125	10	254	15/16	24	8½	216	8	⅞	22	¾	19	3	76	5 9/16	141	7¾	197
6	150	11	279	1	25	9½	241	8	⅞	22	¾	19	3¼	83	6⅝	168	8¾	222
8	200	13½	343	1⅛	29	11¾	298	8	⅞	22	¾	19	3½	89	8⅝	219	11	279
10	250	16	406	1 3/16	30	14¼	362	12	1	25	⅞	22	3¾	95	10¾	273	13⅜	340
12	300	19	483	1¼	32	17	432	12	1	25	⅞	22	3¾	95	12¾	324	16⅛	410
14 O.D.	350 O.D.	21	533	1⅜	35	18¾	476	12	1⅛	29	1	25	4¼	108	14	356	17¾	451
16 O.D.	400 O.D.	23½	597	1 7/16	37	21¼	540	16	1⅛	29	1	25	4½	114	16	406	20¼	514
18 O.D.	450 O.D.	25	635	1 9/16	40	22¾	578	16	1¼	32	1⅛	29	4¾	121	18	457	21⅝	549
20 O.D.	500 O.D.	27½	699	1 11/16	43	25	635	20	1¼	32	1⅛	29	5	127	20	508	23⅞	606
24 O.D.	600 O.D.	32	813	1⅞	48	29½	749	20	1⅜	35	1¼	32	5½	140	610	610	28¼	718

Drilling templates are in multiples of four, so that fittings may be made to face in any quarter.
Bolt holes straddle the center line.

Bolt Template for Drilling Extra Heavy Flanged Fittings

Pipe Size		Flange Dia.		Min. Flange Thickness		Dia. of Raised Face		Bolt Circle Dia.		No of bolts	Dia. of Bolt Holes		Bolt Dia.		Bolt Length		Gasket I.D.		Ring Gasket O.D.	
NPS	DN	in	mm	in	mm	in	mm	in	mm		in	mm	in	mm	in	mm	in	mm	in	mm
1	25	4 7/8	124	11/16	17	2 11/16	68	3 1/2	89	4	3/4	19	5/8	16	2 1/2	64	1 5/16	33	2 7/8	51
1 1/4	32	5 1/4	133	3/4	19	3 1/16	78	3 7/8	98	4	3/4	19	5/8	16	2 1/2	64	1 21/32	42	3 1/4	83
1 1/2	40	6 1/8	156	13/16	22	3 9/16	90	4 1/2	114	4	7/8	22	3/4	19	2 3/4	70	1 29/32	48	3 3/4	95
2	50	6 1/2	165	7/8	22	4 3/16	106	5	127	8	3/4	19	5/8	16	2 3/4	70	2 3/8	60	4 3/8	111
2 1/2	65	7 1/2	191	1	25	4 15/16	125	5 7/8	149	8	7/8	22	3/4	19	3 1/4	83	2 7/8	73	5 1/8	130
3	80	8 1/4	210	1 1/8	29	5 11/16	144	6 5/8	168	8	7/8	22	3/4	19	3 1/2	89	3 1/2	89	5 7/8	149
3 1/2	90	9	229	1 3/16	30	6 5/16	160	7 1/4	184	8	7/8	22	3/4	19	3 1/2	89	4	102	6 1/2	165
4	100	10	254	1 1/4	32	6 15/16	176	7 7/8	200	8	7/8	22	3/4	19	3 3/4	95	4 1/2	114	7 1/8	181
5	125	11	279	1 3/8	35	8 5/16	211	9 1/4	235	8	7/8	22	3/4	19	4	102	5 9/16	141	8 1/2	216
6	150	12 1/2	318	1 7/16	37	9 11/16	246	10 5/8	270	12	7/8	22	3/4	19	4	102	6 5/8	168	9 7/8	251
8	200	15	381	1 5/8	41	11 15/16	303	13	330	12	1	25	7/8	22	4 1/2	114	8 5/8	219	12 1/8	308
10	250	17 1/2	445	1 7/8	48	14 1/16	357	15 1/4	387	16	1 1/8	29	1	25	5 1/4	133	10 3/4	273	14 1/4	362
12	300	20 1/2	521	2	51	16 7/16	418	17 3/4	451	16	1 1/4	32	1 1/8	29	5 1/2	140	12 3/4	324	16 5/8	422

Drilling templates are in multiples of four, so that fittings may be made to face in any quarter.
Bolt holes straddle the center line.

Floor and Ceiling Plates

Stamped Steel for Copper Tube Figure 1 (with Springs) Figure 2 (with Set Screw)	Size		Outside Dia.		Weight/Doz.	
	NPS	Dn	in	mm	lbs	kg
	¼	8	2⅛	54	0.88	0.40
	⅜	10	2⅛	54	0.69	0.31
	½	15	2 7/16	62	0.81	0.37
	¾	20	2 21/32	67	0.94	0.43
	1	25	2 27/32	72	1.1	0.48
	1¼	32	3 9/32	83	1.4	0.63
	1½	40	3⅝	92	1.6	0.74
	2	50	4 3/16	106	2.1	1.0
	2½	65	4⅞	124	2.8	1.2
	3	80	5 3/16	132	2.8	1.3
	3½	90	—	—	—	—
	4	100	—	—	—	—
	5	125	—	—	—	—
	6	150	—	—	—	—

Stamped Steel for Pipe Figure 10 (with Springs) Figure 13 (with Set Screw)	Size		Outside Dia.		Weight/Doz.	
	NPS	DN	in	mm	lbs	kg
	¼	8	2 3/16	56	0.69	0.31
	⅜	10	2½	64	0.81	0.37
	½	15	2⅝	67	0.94	0.43
	¾	20	2 27/32	72	1.00	0.45
	1	25	3 9/32	83	1.4	0.63
	1¼	32	3⅝	92	1.6	0.74
	1½	40	3 15/16	100	1.7	0.77
	2	50	4⅜	111	2.3	1.0
	2½	65	5 7/32	133	2.9	1.3
	3	80	5 29/32	150	3.4	1.5
	3½	90	6 9/16	167	4.0	1.8
	4	100	7 3/16	183	4.6	2.1
	5	125	8⅞	225	9.0	4.1
	6	150	10	254	11	4.8

Stamped Steel for Pipe Figure 20 (with Springs and Exposed Rivet Hinge)	Size		Outside Dia.		Weight/Doz.	
	NPS	DN	in	mm	lbs	kg
	¼	8	—	—	—	—
	⅜	10	2½	64	0.88	0.40
	½	15	2⅝	67	0.88	0.40
	¾	20	2 27/32	72	0.94	0.43
	1	25	3 9/32	83	1.3	0.57
	1¼	32	3⅝	92	1.4	0.63
	1½	40	3 15/16	100	1.6	0.74
	2	50	4 9/16	116	2.3	1.0
	2½	65	5¼	133	2.8	1.3
	3	80	5⅞	149	3.3	1.5
	3½	90	6 9/16	167	4.1	1.8
	4	100	7 3/16	183	4.4	2.0
	5	125	—	—	—	—
	6	150	—	—	—	—

Standard Malleable Iron Fittings

- Cartons ..... pf-116 to pf-121
- Palleted ..... pf-122 to pf-134

Cast Iron Fittings

- Palleted ..... pf-135 to pf-137

Steel Pipe Nipples

- Cartons pf-138
- “25 packs” Standard/Sch. 40 ..... pf-139 to pf-142
- “25 packs” XS/Sch. 80 ..... pf-143 to pf-146
- Nipple Assortments pf-147

Cartons
Standard Malleable Iron Fittings
(black or galvanized)

Size (NPS)	Size DN	Master Containers: No. Pcs	Weight. Lbs	Weight. kg	No. Bags/ Cartons	Cartons: No Pcs	▲Wt. Lbs	▲Wt. kg	Sold Box Only
90° Elbow: Fig. 1101 (Pg. pf-58)									
⅛	6	105	6.0	2.7	3	35	2.1	1.0	
¼	8	75	8.0	3.6	3	25	2.8	1.3	❑blk
⅜	10	40	7.0	3.2	2	20	3.4	1.5	❑
½	15	200	60	27	4	50	15	6.8	❑
¾	20	140	63	29	4	35	16	7.2	❑
1	25	80	58	26	4	20	15	6.6	❑
1¼	32	48	47	21	4	12	12	5.3	❑
1½	40	32	42	19	4	8	10	4.7	❑
2	50	20	41	19	2	10	21	9	❑
2½	65	10	37	17	2	5	18	8.3	❑
3	80	8	44	20	2	4	22	10	❑
3½	90	6	43	20	2	3	21	10	
4	100	5	43	20	-	-	-	-	❑
90° Reducing Elbow: Fig. 1101R (Pg. pf-59)									
¼ x ⅛	8 x 6	100	10.0	4.5	2	50	5.0	2.3	
⅜ x ⅛	10 x 6	75	7.0	3.2	2	25	3.5	1.6	
⅜ x ¼	10 x 8	50	9.0	4.1	3	25	3.0	1.4	
½ x ¼	15 x 8	30	6.0	2.7	2	15	2.9	1.3	
½ x ⅜	15 x 10	300	66	30	4	75	17	7.5	
¾ x ¼	20 x 8	24	6.0	2.7	2	12	3.1	1.4	
¾ x ⅜	20 x 10	160	46	21	8	20	5.8	2.6	
¾ x ½	20 x 15	180	68	31	4	45	17	7.8	❑blk
1 x ⅜	25 x 10	120	49	22	8	15	6.2	2.8	
1 x ½	25 x 15	100	46	21	4	25	12	5.2	❑
1 x ¾	25 x 20	80	45	20	4	20	11	5.1	❑
1¼ x ½	32 x 15	80	49	22	4	20	12	5.5	
1¼ x ¾	32 x 20	60	43	20	4	15	11	4.9	❑
1¼ x 1	32 x 25	60	52	24	4	15	13	5.9	❑
1½ x ¾	40 x 20	48	40	18	4	12	10.0	4.5	
1½ x 1	40 x 25	48	49	22	4	12	12	5.5	
1½ x 1¼	40 x 32	32	37	17	4	8	9.4	4.3	❑blk
2 x ¾	50 x 20	24	31	14	4	6	7.8	3.5	
2 x 1	50 x 25	30	41	19	2	15	20	9	
2 x 1¼	50 x 32	24	37	17	2	12	18	8.3	
2 x 1½	50 x 40	24	42	19	2	12	21	10	❑blk
2½ X 1½	65 x 40	12	30	14	2	6	15	6.9	
2½ X 2	65 x 50	10	30	14	2	5	15	6.8	
3 X 2	80 x 50	8	30	14	2	4	15	6.8	
3 X 2½	80 x 65	8	34	15	2	4	17	7.8	
4 X 3	100 x 80	4	31	31	2	2	16	7.1	

Size (NPS)	Size DN	Master Containers: No. Pcs	Weight. Lbs	Weight. kg	No. Bags/ Cartons	Cartons: No Pcs	▲Wt. Lbs	▲Wt. kg	Sold Box Only
45° Elbow: Fig. 1102 (Pg. pf-58)									
⅛	6	150	11	5.0	3	50	3.5	1.6	
¼	8	70	8.0	3.6	2	35	3.9	1.8	
⅜	10	40	6.0	2.7	2	20	3.2	1.5	
½	15	300	66	30	4	75	17	7.5	❑blk
¾	20	160	59	27	4	40	15	6.7	❑blk
1	25	100	54	24	4	25	14	6.1	❑
1¼	32	60	52	24	4	15	13	5.9	❑blk
1½	40	32	36	16	4	8	9.0	4.1	❑
2	50	24	43	20	4	6	11	4.9	❑
2½	65	10	28	13	2	5	14	6.3	❑blk
3	80	8	36	16	2	4	18	8.1	❑
4	100	4	30	14	-	-	-	-	❑
90° Street Elbow: Fig. 1103 (Pg. pf-60)									
⅛	6	120	7.0	3.2	3	40	2.4	1.1	❑blk
¼	8	90	9.0	4.1	3	30	3.0	1.4	❑
⅜	10	40	7.0	3.2	2	20	3.4	1.5	❑
½	15	300	84	38	4	75	21	10	❑
¾	20	160	66	30	4	40	16	7.4	❑
1	25	60	37	17	4	15	9.3	4.2	❑
1¼	32	40	44	20	4	10	11	4.9	❑blk
1½	40	32	46	21	4	8	12	5.2	❑
2	50	20	57	26	2	10	29	13	❑
2½	65	8	32	15	2	4	16	7.3	❑blk
3	80	4	24	11	-	-	-	-	❑blk
4	100	4	42	19	-	-	-	-	
90° Street Elbow, Reducing: Fig. 1103R (Pg. pf-60)									
½ X ⅜	15 x 10	280	64	29	8	35	8.1	3.7	
¾ X ½	20 x 15	200	64	29	8	25	8.0	3.6	❑blk
1 X ¾	25 x 20	100	54	24	4	25	14	6.1	
1¼ X ¾	32 x 20	60	45	20	4	15	11	5.1	
1¼ X 1	32 x 25	60	52	24	4	15	13	5.9	
1½ X 1	40 x 25	40	43	20	4	10	11	4.9	
1½ X 1¼	40 x 32	40	47	21	2	20	24	11	
2 X 1½	50 x 40	24	44	20	2	12	22	10	
45° Street Elbow: Fig. 1104 (Pg. pf-59)									
⅛	6	150	9.0	4.1	3	50	3.0	1.4	
¼	8	100	10.0	4.5	2	50	5.0	2.3	
⅜	10	50	7.0	3.2	2	25	3.5	1.6	
½	15	300	60	27	4	75	15	6.8	
¾	20	160	53	24	4	40	13	6.0	
1	25	100	52	24	4	25	13	5.9	
1¼	32	60	51	23	4	15	13	5.8	
1½	40	40	49	22	4	10	12	5.5	
2	50	24	46	21	2	12	23	10	

▲Weights shown are for black; †Black only; ■ Galvanized Only

❑blk - Sold in box only for Black finish, ❑gal - Sold in box only for Galvanized finish, ❑ - Sold in box only for both finish

Cartons
Standard Malleable Iron Fittings (black or galvanized) (cont.)

Size		Master Containers				Cartons			
		No. Pcs	Weight.		No. Bags/ Cartons	No Pcs	▲Wt.		Sold Box Only
(NPS)	DN		Lbs	kg			Lbs	kg	
Tee: Fig. 1105 (Pg. pf-60)									
⅛	6	75	7.0	3.2	3	25	2.3	1.0	❑blk
¼	8	40	6.0	2.7	2	20	3.0	1.4	❑
⅜	10	30	7.0	3.2	2	15	3.5	1.6	❑blk
½	15	160	66	30	4	40	16	7.4	❑
¾	20	80	54	24	4	20	13	6.1	❑
1	25	48	43	20	4	12	11	4.9	❑
1¼	32	32	42	19	4	8	11	4.8	❑
1½	40	20	35	16	4	5	8.7	3.9	❑
2	50	20	50	23	2	10	25	11	❑
2½	65	8	39	18	2	4	20	8.9	❑
3	80	6	42	19	2	3	21	10	❑
3½†	90	4	36	16	-	-	-	-	
4	100	4	45	20	-	-	-	-	
Tee, Reducing: Fig. 1105R (Pg. pf-61)									
⅛ X ⅛ X ¼	6 x 6 x 8	50	6.0	2.7	2	25	3.0	1.4	
¼ X ¼ X ⅛	8 x 8 x 6	50	7.0	3.2	2	25	3.3	1.5	
¼ X ¼ X ⅜	8 x 8 x 10	30	6.0	2.7	2	15	2.9	1.3	
⅜ X ¼ X ¼	10 x 8 x 8	30	6.0	2.7	2	15	2.9	1.3	
⅜ X ¼ X ⅜	10 x 8 x 10	30	6.0	2.7	2	15	3.2	1.5	
⅜ X ⅜ X ¼	10 x 10 x 8	30	6.0	2.7	2	15	3.2	1.5	
⅜ X ⅜ X ½	10 x 10 x 15	20	5.0	2.3	2	10	2.7	1.2	
½ X ¼ X ½	15 x 8 x 15	20	6.0	2.7	2	10	2.9	1.3	
½ X ⅜ X ⅜	15 x 10 x 10	20	6.0	2.7	2	10	2.8	1.3	
½ X ⅜ X ½	15 x 10 x 15	20	7.0	3.2	2	10	3.3	1.5	
½ X ½ X ¼	15 x 15 x 8	20	5.0	2.3	2	10	2.7	1.2	
½ X ½ X ⅜	15 x 15 x 10	200	60	27	8	25	7.5	3.4	
½ X ½ X ¾	15 x 15 x 20	120	54	24	4	30	14	6.1	
½ X ½ X 1	15 x 15 x 25	100	55	25	4	25	14	6.3	
¾ X ¼ X ¾	20 x 8 x 20	120	54	24	4	30	14	6.1	
¾ X ⅜ X ⅜†	20 x 10 x 10	140	50	23	4	35	13	5.7	
¾ X ⅜ X ¾	20 x 10 x 20	100	46	21	4	25	12	5.2	
¾ X ½ X ½	20 x 15 x 15	140	60	27	4	35	15	6.8	❑blk
¾ X ½ X ¾	20 x 15 x 20	80	42	19	4	20	10	4.7	❑blk
¾ X ¾ X ¼	20 x 20 x 8	140	53	24	4	35	13	6.0	
¾ X ¾ X ⅜	20 x 20 x 10	120	50	23	4	30	13	5.7	
¾ X ¾ X ½	20 x 20 x 15	80	38	17	4	20	9.4	4.3	❑blk
¾ X ¾ X 1	20 x 20 x 25	60	37	17	4	15	9.3	4.2	
¾ X ¾ X 1¼	20 x 20 x 32	40	36	16	4	10	9.0	4.1	
1 X ¼ X 1	25 x 8 x 25	60	41	19	4	15	10	4.7	
1 X ½ X ½	25 x 15 x 15	100	55	25	4	25	14	6.3	❑blk
1 X ½ X ¾	25 x 15 x 20	80	45	20	4	20	11	5.1	❑blk
1 X ½ X 1	25 x 15 x 25	60	46	21	4	15	11	5.2	❑blk
1 X ¾ X ½	25 x 20 x 15	80	47	21	4	20	12	5.4	❑blk
1 X ¾ X ¾	25 x 20 x 20	60	44	20	4	15	11	5.0	❑blk
1 X ¾ X 1	25 x 20 x 25	60	47	21	4	15	12	5.3	❑blk

Size		Master Containers				Cartons			
		No. Pcs	Weight.		No. Bags/ Cartons	No Pcs	▲Wt.		Sold Box Only
(NPS)	DN		Lbs	kg			Lbs	kg	
Tee, Reducing: Fig. 1105R (Continued)									
1 X 1 X ¼	25 x 25 x 8	80	42	19	4	20	11	4.8	
1 X 1 X ⅜	25 x 25 x 10	80	48	22	4	20	12	5.4	
1 X 1 X ½	25 x 25 x 15	60	42	19	4	15	11	4.8	❑
1 X 1 X ¾	25 x 25 x 20	60	49	22	4	15	12	5.6	❑blk
1 X 1 X 1¼	25 x 25 x 32	40	37	17	4	10	9.2	4.2	
1 X 1 X 1½	25 x 25 x 40	32	38	17	4	8	9.5	4.3	
1 X 1 X 2	25 x 25 x 50	24	39	18	2	12	20	8.9	
1¼ X ½ X 1	32 x 15 x 25	40	35	16	4	10	8.7	3.9	
1¼ X ½ X 1¼	32 x 15 x 32	24	25	11	4	6	6.2	2.8	
1¼ X ¾ X ¾	32 x 20 x 20	40	34	15	4	10	8.6	3.9	
1¼ X ¾ X 1	32 x 20 x 25	40	36	16	4	10	9.1	4.1	
1¼ X ¾ X 1¼	32 x 20 x 32	24	25	11	4	6	6.2	2.8	
1¼ X 1 X ½	32 x 25 x 15	60	46	21	4	15	11	5.2	❑blk
1¼ X 1 X ¾	32 x 25 x 20	40	35	16	4	10	8.7	3.9	❑blk
1¼ X 1 X 1	32 x 25 x 25	40	44	20	4	10	11	5.0	❑blk
1¼ X 1 X 1¼	32 x 25 x 32	24	27	12	4	6	6.8	3.1	
1¼ X 1¼ X ⅜	32 x 32 x 10	40	34	15	4	10	8.6	3.9	
1¼ X 1¼ X ½	32 x 32 x 15	40	39	18	4	10	9.8	4.4	❑blk
1¼ X 1¼ X ¾	32 x 32 x 20	32	34	15	4	8	8.6	3.9	❑blk
1¼ X 1¼ X 1	32 x 32 x 25	40	47	21	2	20	24	11	❑
1¼ X 1¼ X 1½	32 x 32 x 40	30	44	20	2	15	22	10	
1¼ X 1¼ X 2	32 x 32 x 50	24	41	19	2	12	20	9	
1½ X ½ X 1½	40 x 15 x 40	30	40	18	2	15	20	9.1	
1½ X ¾ X ¾	40 x 20 x 20	40	40	18	4	10	10.0	4.5	
1½ X ¾ X 1½	40 x 20 x 40	30	42	19	2	15	21	10	
1½ X 1 X 1	40 x 25 x 25	32	36	16	4	8	9.1	4.1	
1½ X 1 X 1¼	40 x 25 x 32	30	39	18	2	15	20	8.8	
1½ X 1 X 1½	40 x 25 x 40	30	45	20	2	15	23	10	
1½ X 1¼ X ½	40 x 32 x 15	40	42	19	4	10	11	4.8	
1½ X 1¼ X ¾	40 x 32 x 20	32	35	16	4	8	8.6	3.9	
1½ X 1¼ X 1	40 x 32 x 25	32	40	18	4	8	10	4.6	
1½ X 1¼ X 1¼	40 x 32 x 32	24	36	16	2	12	18	8.3	
1½ X 1¼ X 1½	40 x 32 x 40	24	36	16	2	12	18	8.2	
1½ X 1½ X ½	40 x 40 x 15	32	38	17	4	8	9.5	4.3	❑
1½ X 1½ X ¾	40 x 40 x 20	24	32	15	4	6	7.9	3.6	❑
1½ X 1½ X 1	40 x 40 x 25	24	35	16	4	6	8.7	3.9	❑
1½ X 1½ X 1¼	40 x 40 x 32	24	35	16	4	6	8.7	3.9	
1½ X 1½ X 2	40 x 40 x 50	24	45	20	2	12	22	10	
2 X ½ X 2	50 x 15 x 50	20	43	20	2	10	22	10	
2 X ¾ X 2	50 x 20 x 50	20	40	18	2	10	20	9.1	
2 X 1 X 2	50 x 25 x 50	20	43	20	2	10	21	10	
2 X 1¼ X 1¼	50 x 32 x 32	20	34	15	2	10	17	7.8	
2 X 1¼ X 1½	50 x 32 x 40	20	37	17	2	10	19	8.4	
2 X 1¼ X 2	50 x 32 x 50	20	44	20	2	10	22	10	

▲Weights shown are for black; †Black only; ■ Galvanized Only

❑blk - Sold in box only for Black finish, ❑gal - Sold in box only for Galvanized finish, ❑ - Sold in box only for both finish

Cartons
Standard Malleable Iron Fittings
(black or galvanized) (cont.)

Size (NPS)	Size DN	Master Containers No. Pcs	Weight. Lbs	Weight. kg	No. Bags/ Cartons	Cartons No Pcs	▲Wt. Lbs	▲Wt. kg	Sold Box Only
Tee, Reducing: Fig. 1105R (Continued)									
2 X 1½ X 1	50 x 40 x 25	24	38	17	2	12	19	8.5	
2 X 1½ X 1¼	50 x 40 x 32	20	35	16	2	10	18	8.0	
2 X 1½ X 1½	50 x 40 x 40	20	39	18	2	10	20	8.8	
2 X 1½ X 2	50 x 40 x 50	16	36	16	2	8	18	8.1	
2 X 2 X ½	50 x 50 x 15	30	50	23	2	15	25	11	❑
2 X 2 X ¾	50 x 50 x 20	24	45	20	2	12	22	10	❑
2 X 2 X 1	50 x 50 x 25	24	42	19	2	12	21	10	❑
2 X 2 X 1¼	50 x 50 x 32	20	47	21	2	10	24	11	❑blk
2 X 2 X 1½	50 x 50 x 40	20	51	23	2	10	26	12	❑blk
2 X 2 X 2½	50 x 50 x 65	12	42	19	2	6	21	10	
2½ X 1½ X 2	65 x 40 x 50	12	41	19	2	6	21	9	
2½ X 1½ X 2½	65 x 40 x 65	12	46	21	2	6	23	10	
2½ X 2 X 2	65 x 50 x 50	12	39	18	2	6	20	8.9	
2½ X 2 X 2½	65 x 50 x 65	8	32	15	2	4	16	7.3	
2½ X 2½ X ¾	65 x 65 x 20	12	33	15	2	6	16	7.4	
2½ X 2½ X 1	65 x 65 x 25	12	34	15	2	6	17	7.8	
2½ X 2½ X 1¼	65 x 65 x 32	12	40	18	2	6	20	9.1	
2½ X 2½ X 1½	65 x 65 x 40	12	42	19	2	6	21	9	
2½ X 2½ X 2	65 x 65 x 50	12	44	20	2	6	22	10	
2½ X 2½ X 3	65 x 65 x 80	8	47	21	2	4	23	11	
3 X 2 X 2	80 x 50 x 50	8	36	16	2	4	18	8.1	
3 X 2 X 3	80 x 50 x 80	8	46	21	2	4	23	10	
3 X 2½ X 2	80 x 65 x 50	8	38	17	2	4	19	8.7	
3 X 2½ X 2½	80 x 65 x 65	8	46	21	2	4	23	11	
3 X 3 X ¾	80 x 80 x 20	8	32	15	2	4	16	7.3	
3 X 3 X 1	80 x 80 x 25	8	33	15	2	4	17	7.5	
3 X 3 X 1¼	80 x 80 x 32	8	36	16	2	4	18	8.2	
3 X 3 X 1½	80 x 80 x 40	8	42	19	2	4	21	9	
3 X 3 X 2	80 x 80 x 50	8	46	21	2	4	23	10	
3 X 3 X 2½	80 x 80 x 65	8	49	22	2	4	24	11	
4 X 3 X 4	100 x 80 x 100	4	42	19	–	–	–	–	
4 X 4 X 1½	100 x 100 x 40	4	30	14	–	–	–	–	
4 X 4 X 2	100 x 100 x 50	4	34	15	–	–	–	–	
4 X 4 X 2½	100 x 100 x 65	4	38	17	–	–	–	–	
4 X 4 X 3 ■	100 x 100 x 80	0	0	0	–	4		–	
Street Tee: Fig. 1106 (Pg. pf-64)									
¼	8	50	8.0	3.6	2	25	3.8	1.7	
⅜	10	24	6.0	2.7	2	12	2.9	1.3	
½	15	120	41	19	8	15	5.1	2.3	
¾	20	60	37	17	4	15	9.2	4.2	
1	25	40	38	17	4	10	9.6	4.4	
1¼	32	24	33	15	4	6	8.3	3.8	
1½	40	24	46	21	2	12	23	11	
2	50	16	51	23	2	8	25	11	
Street Tee, Reducing: Fig. 1106R (Pg. pf-64)									
1¼ x 1 x 1¼†	32 x 25 x 32†	32	43	20	4	8	11	4.9	

Size (NPS)	Size DN	Master Containers No. Pcs	Weight. Lbs	Weight. kg	No. Bags/ Cartons	Cartons No Pcs	▲Wt. Lbs	▲Wt. kg	Sold Box Only
Cross: Fig. 1107 (Pg. pf-65)									
⅛	6	50	6.0	2.7	2	25	3.0	1.4	
¼	8	30	5.0	2.3	2	15	2.7	1.2	
⅜	10	160	45	20	8	20	5.6	2.5	
½	15	120	50	23	4	30	13	5.7	❑blk
¾	20	60	41	19	4	15	10	4.7	
1	25	40	45	20	4	10	11	5.1	❑blk
1¼	32	30	43	20	2	15	22	10	
1½	40	20	40	18	2	10	20	9.0	
2	50	16	53	24	2	8	26	12	❑blk
2½	65	8	41	19	2	4	21	9	
3	80	4	32	15	–	0	–	–	
4■	100	0	0	0	–	4	-	–	
Y Branch: Fig. 1108 (Pg. pf-64)									
⅜	10	24	6.0	2.7	2	12	3.2	1.5	
½	15	140	52	24	4	35	13	5.9	
¾	20	80	50	23	4	20	12	5.6	
1	25	40	34	15	4	10	8.6	3.9	
1¼	32	24	39	18	4	6	9.8	4.4	
1½	40	20	40	18	2	10	20	9.1	
2	50	12	37	17	2	6	18	8.3	
2½	65	4	23	10	–	–	0.0	0.0	
3	80	0	0	0	–	–	0.0	0.0	
4	100	0	0	0	–	–	0.0	0.0	
Open Pattern Return Bend: Fig. 1119 (Pg. pf-66)									
½†	15†	160	58	26	8	20	7.2	3.3	
¾†	20†	80	51	23	4	20	13	5.8	
1	25	40	44	20	4	10	11	5.0	
1¼†	32†	24	42	19	2	12	21	10	
1½†	40†	20	51	23	2	10	26	12	
2	50	12	48	22	2	6	24	11	
Coupling: Fig. 1121 (Pg. pf-65)									
⅛	6	160	10.0	4.5	4	40	2.4	1.1	
¼	8	105	9.0	4.1	3	35	3.2	1.5	
⅜	10	60	8.0	3.6	2	30	3.9	1.8	
½	15	40	8.0	3.6	2	20	4.0	1.8	❑
¾	20	240	72	33	4	60	18	8.2	❑
1	25	100	48	22	4	25	12	5.4	❑
1¼	32	60	45	20	4	15	11	5.1	❑blk
1½	40	40	40	18	4	10	10.0	4.5	❑
2	50	20	29	13	4	5	7.3	3.3	❑
2½	65	24	58	26	2	12	29	13	❑blk
3	80	8	26	12	2	4	13	6.0	❑blk
4	100	8	46	21	2	4	23	10	❑blk

▲Weights shown are for black; †Black only; ■ Galvanized Only

❑blk - Sold in box only for Black finish, ❑gal - Sold in box only for Galvanized finish, ❑ - Sold in box only for both finish

Cartons
Standard Malleable Iron Fittings (black or galvanized) (cont.)

Size		Master Containers				Cartons			
		No. Pcs	Weight.		No. Bags/ Cartons	No Pcs	▲Wt.		Sold Box Only
(NPS)	DN		Lbs	kg			Lbs	kg	
Cap: Fig. 1124 (Pg. pf-66)									
½	15	300	36	16	4	75	9.0	4.1	❑
¾	20	240	53	24	4	60	13	6.0	❑
1	25	140	53	24	4	35	13	6.0	❑
1¼	32	100	58	26	4	25	15	6.6	❑blk
1½	40	80	58	26	4	20	15	6.6	❑
2	50	48	54	24	4	12	14	6.2	❑
2½	65	30	53	24	2	15	26	12	❑blk
3	80	24	63	29	2	12	31	14	❑
3½	90	16	51	23	2	8	26	12	
4	100	8	36	16	2	4	18	8.3	❑
5	125	8	52	24	2	4	26	12	
6	150	–	–	–	–	–	–	–	
Reducer: Fig. 1125 (Pg. pf-66)									
¼ X ⅛	8 x 6	100	7.0	3.2	4	25	1.8	0.82	❑blk
⅜ X ⅛	10 x 6	90	10.0	4.5	3	30	3.3	1.5	
⅜ X ¼	10 x 8	75	8.0	3.6	3	25	2.8	1.3	❑blk
½ X ⅛	15 x 6	40	6.0	2.7	2	20	2.8	1.3	
½ X ¼	15 x 8	50	8.0	3.6	2	25	3.8	1.7	❑blk
½ X ⅜	15 x 10	50	9.0	4.1	2	25	4.3	2.0	❑blk
¾ X ⅛	20 x 6	160	38	17	8	20	4.8	2.2	
¾ X ¼	20 x 8	24	5.0	2.3	2	12	2.6	1.2	
¾ X ⅜	20 x 10	200	50	23	4	50	13	5.7	
¾ X ½	20 x 15	240	65	29	4	60	16	7.3	❑
1 X ¼	25 x 8	160	56	25	8	20	7.0	3.2	
1 X ⅜	25 x 10	160	56	25	8	20	7.0	3.2	
1 X ½	25 x 15	180	70	32	4	45	18	8.0	❑
1 X ¾	25 x 20	140	60	27	4	35	15	6.8	❑
1¼ X ½	32 x 15	60	37	17	4	15	9.2	4.2	
1¼ X ¾	32 x 20	80	51	23	4	20	13	5.8	❑blk
1¼ X 1	32 x 25	80	54	24	4	20	14	6.2	❑blk
1½ X ½	40 x 15	60	47	21	4	15	12	5.3	
1½ X ¾	40 x 20	60	53	24	4	15	13	6.0	❑blk
1½ X 1	40 x 25	60	53	24	4	15	13	6.0	❑blk
1½ X 1¼	40 x 32	40	36	16	4	10	9.0	4.1	❑blk
2 X ½	50 x 15	40	52	24	4	10	13	5.9	
2 X ¾	50 x 20	20	27	12	4	5	6.7	3.0	❑blk
2 X 1	50 x 25	20	28	13	4	5	7.0	3.2	❑
2 X 1¼	50 x 32	20	31	14	4	5	7.7	3.5	❑blk
2 X 1½	50 x 40	20	31	14	4	5	7.8	3.5	❑
2½ X 1	65 x 25	20	42	19	2	10	21	10	
2½ X 1¼	65 x 32	20	42	19	2	10	21	9	
2½ X 1½	65 x 40	14	29	13	2	7	15	6.6	
2½ X 2	65 x 50	16	40	18	2	8	20	9	❑blk
3 X 1	80 x 25	10	32	15	2	5	16	7.2	
3 X 1¼	80 x 32	8	24	11	2	4	12	5.4	
3 X 1½	80 x 40	8	24	11	2	4	12	5.5	
3 X 2	80 x 50	10	34	15	2	5	17	7.8	❑
3 X 2½	80 x 65	10	33	15	2	5	17	7.5	❑blk
3½ X 2	90 x 50	8	35	16	2	4	17	7.8	

Size		Master Containers				Cartons			
		No. Pcs	Weight.		No. Bags/ Cartons	No Pcs	▲Wt.		Sold Box Only
(NPS)	DN		Lbs	kg			Lbs	kg	
Reducer: Fig. 1125 (Continued)									
3½ X 3	90 x 80	8	40	18	2	4	20	9.1	
4 X 1½	100 x 40	–	–	–	–	4	–	–	
4 X 2	100 x 50	–	–	–	–	4	–	–	❑blk
4 X 2½	100 x 65	–	–	–	–	4	–	–	
4 X 3	100 x 80	–	–	–	–	4	–	–	❑
4 X 3½	100 x 90	–	–	–	–	4	–	–	
Waste Nut, oval: Fig. 1133 (Pg. pf-67)									
¼†	8†	150	8.0	3.6	3	50	2.5	1.1	
½†	15†	100	12	5.4	2	50	6.0	2.7	
¾	20	50	8.0	3.6	2	25	3.8	1.7	
Locknut, Hex : Fig. 1134 (Pg. pf-65)									
⅜	10	200	8.0	3.6	4	50	2.0	0.91	
½	15	150	9.0	4.1	3	50	3.0	1.4	
¾	20	100	8.0	3.6	2	50	4.0	1.8	
1	25	50	7.0	3.2	2	25	3.5	1.6	
1¼	32	200	42	19	8	25	5.3	2.4	
1½	40	120	29	13	8	15	3.6	1.6	
2	50	100	40	18	4	25	10.0	4.5	
Extension Piece: Fig. 1137 (Pg. pf-67)									
⅜	10	50	5.0	2.3	2	25	2.5	1.1	
½	15	40	6.0	2.7	2	20	3.0	1.4	❑blk
¾	20	240	62	28	4	60	16	7.1	
1	25	120	50	23	4	30	13	5.7	
Floor Flange: Fig. 1190 (Pg. pf-64)									
½	15	120	66	30	4	30	17	7.5	
¾	20	80	43	20	4	20	11	4.9	❑
1	25	60	46	21	4	15	11	5.2	❑blk
1¼	32	50	45	20	2	25	23	10	❑
1½	40	40	48	22	4	10	12	5.4	❑blk
2	50	30	60	27	2	15	30	14	❑
45° Street Elbow: Fig. 1160 (Pg. pf-68)									
½†	15	24	9.0	4.1	2	12	4.3	2.0	
¾†	20	120	65	29	4	30	16	7.3	
1†	25	60	51	23	4	15	13	5.8	
1¼†	32	40	60	27	4	10	15	6.8	❑blk
1½†	40	24	49	22	4	6	12	5.6	
2†	50	16	53	24	2	8	27	12	
90° Elbow: Fig. 1161 (Pg. pf-68)									
¼	8	40	8.0	3.6	2	20	4.0	1.8	❑blk
⅜	10	30	9.0	4.1	2	15	4.4	2.0	
½	15	160	75	34	4	40	19	8.5	❑
¾	20	80	53	24	4	20	13	6.0	❑
1	25	60	69	31	4	15	17	7.8	❑
1¼	32	26	49	22	2	13	25	11	❑blk
1½	40	20	49	22	2	10	25	11	❑
2	50	12	45	20	2	6	23	10	❑
2½	65	6	39	18	2	3	20	8.8	❑blk
3	80	4	40	18	2	2	20	9.0	❑blk

▲Weights shown are for black; †Black only; ■ Galvanized Only

❑blk - Sold in box only for Black finish, ❑gal - Sold in box only for Galvanized finish, ❑ - Sold in box only for both finish

Cartons
Standard Malleable Iron Fittings
(black or galvanized) (cont.)

Size		Master Containers				Cartons			
		No. Pcs	Weight.		No. Bags/ Cartons	No Pcs	▲Wt.		Sold Box Only
(NPS)	DN		Lbs	kg			Lbs	kg	
90° Reducing Elbow: Fig. 1161R (Pg. pf-68)									
⅜ X ¼ †	10 x 8	50	13	5.9	2	25	6.5	2.9	
½ X ⅜ †	15 x 10	50	21	10	2	25	10	4.7	
¾ X ½	20 x 15	40	25	11	2	20	12	5.6	
1 X ½	25 x 15	40	35	16	2	20	17	7.9	
1 X ¾ †	25 x 20	40	40	18	2	20	20	9.1	
1¼ X ¾ †	32 x 20	30	42	19	2	15	21	10	
1¼ X 1 †	32 x 25	30	48	22	2	15	24	11	
1½ X 1 †	40 x 25	20	38	17	2	10	19	8.6	
1½ X 1¼ †	40 x 32	20	43	20	2	10	22	10	
2 X 1¼ †	50 x 32	10	31	14	2	5	16	7.1	
2 X 1½ †	50 x 40	10	33	15	2	5	17	7.5	
45° Elbow: Fig. 1162 (Pg. pf-69)									
¼	8	50	10.0	4.5	2	25	4.8	2.2	
⅜	10	30	8.0	3.6	2	15	4.2	1.9	
½	15	20	9.0	4.1	2	10	4.3	2.0	
¾	20	96	63	29	8	12	7.9	3.6	
1	25	60	60	27	4	15	15	6.8	❑blk
1¼	32	30	50	23	2	15	25	11	❑blk
1½	40	22	47	21	2	11	24	11	❑blk
2	50	12	41	19	2	6	20	9	❑blk
2½	65	8	44	20	2	4	22	10	
3	80	6	49	22	2	3	24	11	
4 †	100	3	40	18	–	–	0.0	0.0	
Cap: Fig. 1163 (Pg. pf-71)									
¼	8	120	12	5.4	3	40	4.0	1.8	
⅜	10	75	11	5.0	3	25	3.8	1.7	
½	15	30	7.0	3.2	2	15	3.5	1.6	
¾	20	24	8.0	3.6	2	12	4.2	1.9	
1	25	120	70	32	8	15	8.7	3.9	
1¼	32	80	75	34	8	10	9.4	4.3	
1½	40	40	47	21	8	5	5.9	2.7	
2	50	32	62	28	4	8	16	7.0	
2½	65	20	66	30	2	10	33	15	
3	80	16	75	34	2	8	38	17	
Tee: Fig. 1164 (Pg. pf-70)									
¼	8	30	8.0	3.6	2	15	4.1	1.9	❑blk
⅜	10	20	8.0	3.6	2	10	4.2	1.9	
½	15	100	65	29	4	25	16	7.4	❑
¾	20	60	64	29	4	15	16	7.3	❑blk
1	25	40	65	29	4	10	16	7.3	❑blk
1¼	32	20	50	23	2	10	25	11	❑blk
1½	40	14	48	22	2	7	24	11	❑blk
2	50	10	52	24	2	5	26	12	❑blk
2½	65	4	34	15					
3	80	4	50	23					

Size		Master Containers				Cartons			
		No. Pcs	Weight.		No. Bags/ Cartons	No Pcs	▲Wt.		Sold Box Only
(NPS)	DN		Lbs	kg			Lbs	kg	
Reducing Tee: Fig. 1164R (Pg. pf-70)									
⅜ X ⅜ X ¼ †	10 x 10 x 8	120	44	20	4	30	11	5.0	
½ X ½ X ¼ †	15 x 15 x 8	104	50	23	2	52	25	11	
½ X ½ X ¾ †	15 x 15 x 20	52	42	19	4	13	10	4.7	
¾ X ½ X ¾ †	20 x 15 x 20	52	48	22	4	13	12	5.5	
¾ X ¾ X ¼	20 x 20 x 8	60	46	21	4	15	11	5.2	
¾ X ¾ X ⅜ †	20 x 20 x 10	52	42	19	4	13	10	4.7	
¾ X ¾ X ½	20 x 20 x 15	52	47	21	4	13	12	5.3	
1 X ½ X 1 †	25 x 15 x 25	36	49	22	2	18	25	11	
1 X ¾ X ¾ †	25 x 20 x 20	40	51	23	4	10	13	5.8	
1 X ¾ X 1 †	25 x 20 x 25	36	50	23	4	9	12	5.6	
1 X 1 X ¼ †	25 x 25 x 8	36	39	18	4	9	9.8	4.4	
1 X 1 X ½	25 x 25 x 15	40	50	23	4	10	13	5.7	
1 X 1 X ¾	25 x 25 x 20	40	53	24	4	10	13	6.0	
1¼ X 1 X 1 †	32 x 25 x 25	28	54	24	2	14	27	12	
1¼ X 1¼ X ½	32 x 32 x 15	30	51	23	2	15	26	12	
1¼ X 1¼ X ¾	32 x 32 x 20	24	46	21	2	12	23	10	
1¼ X 1¼ X 1	32 x 32 x 25	24	50	23	4	6	13	5.7	
1½ X 1½ X ½	40 x 40 x 15	20	45	20	2	10	23	10	
1½ X 1½ X ¾	40 x 40 x 20	20	49	22	2	10	25	11	
1½ X 1½ X 1	40 x 40 x 25	18	47	21	2	9	23	11	
1½ X 1½ X 1¼ †	40 x 40 x 32	18	55	25	2	9	28	12	
2 X 1½ X 2 †	50 x 40 x 50	10	45	20	2	5	23	10	
2 X 2 X ½	50 x 50 x 15	10	34	15	2	5	17	7.7	
2 X 2 X ¾	50 x 50 x 20	16	57	26	2	8	29	13	❑blk
2 X 2 X 1	50 x 50 x 25	12	44	20	2	6	22	10	❑blk
2 X 2 X 1¼	50 x 50 x 32	12	51	23	2	6	25	11	
2 X 2 X 1½	50 x 50 x 40	10	46	21	2	5	23	10	
2½ X 2½ X 1½ †	65 x 65 x 40	8	51	23	2	4	25	12	
3 X 3 X 2	80 x 80 x 50	4	38	17					
Cross: Fig. 1165 (Pg. pf-69)									
⅜ †	10	80	37	17	2	40	18	8.3	
¾	20	50	63	29	2	25	31	14	
1 †	25	26	49	22	2	13	25	11	❑blk
1¼ †	32	16	52	24	2	8	26	12	
1½ †	40	12	50	23	2	6	25	11	
2 †	50	6	39	18	2	3	20	8.8	
Coupling: Fig. 1166 (Pg. pf-71)									
¼	8	60	10.0	4.5	2	30	5.1	2.3	
⅜	10	20	5.0	2.3	2	10	2.6	1.2	
½	15	20	8.0	3.6	2	10	4.0	1.8	
¾	20	96	62	28	8	12	7.8	3.5	
1	25	64	63	29	8	8	7.9	3.6	
1¼	32	30	49	22	2	15	25	11	
1½	40	24	49	22	2	12	24	11	
2	50	16	52	24	2	8	26	12	❑blk
2½	65	10	55	25	2	5	27	12	
3	80	6	44	20	2	3	22	10	

▲Weights shown are for black; † Black only; ■ Galvanized Only

❑blk - Sold in box only for Black finish, ❑gal - Sold in box only for Galvanized finish, ❑ - Sold in box only for both finish

Cartons
Standard Malleable Iron Fittings (black or galvanized) (cont.)

Size		Master Containers				Cartons			
		No. Pcs	Weight.		No. Bags/ Cartons	No Pcs	▲Wt.		Sold Box Only
(NPS)	DN		Lbs	kg			Lbs	kg	
Reducer: Fig. 1167 (Pg. pf-71)									
⅜ X ¼	10 x 8	48	10.0	4.5	2	24	5.0	2.3	
½ X ¼	15 x 8	24	15	6.8	2	12	7.4	3.4	
½ X ⅜	15 x 10	24	16	7.3	2	12	8.2	3.7	
¾ X ¼	20 x 8	90	41	19	2	45	21	9	
¾ X ⅜	20 x 10	90	42	19	2	45	21	10	
¾ X ½	20 x 15	90	45	20	2	45	23	10	
1 X ¼	25 x 8	60	40	18	4	15	9.9	4.5	
1 X ⅜	25 x 10	80	57	26	4	20	14	6.4	
1 X ½	25 x 15	80	57	26	4	20	14	6.4	
1 X ¾	25 x 20	60	46	21	2	30	23	10	
1¼ X ½	32 x 15	44	49	22	2	22	25	11	
1¼ X ¾	32 x 20	48	56	25	4	12	14	6.3	
1¼ X 1	32 x 25	48	61	28	4	12	15	6.9	
1½ X ½	40 x 15	32	48	22	2	16	24	11	
1½ X ¾	40 x 20	40	63	29	4	10	16	7.1	
1½ X 1	40 x 25	32	52	24	4	8	13	5.9	
1½ X 1¼	40 x 32	32	57	26	4	8	14	6.4	
2 X ½†	50 x 15	24	57	26	2	12	29	13	
2 X ¾	50 x 20	20	49	22	2	10	24	11	
2 X 1	50 x 25	18	46	21	2	9	23	10	
2 X 1¼	50 x 32	12	30	14	2	6	15	6.9	
2 X 1½	50 x 40	20	54	24	2	10	27	12	❑blk
2½ X 1½	65 x 40	8	33	15	2	4	16	7.4	
2½ X 2	65 x 50	10	43	20	2	5	22	10	
3 X 1½†	80 x 40	8	46	21	2	4	23	11	
3 X 2	80 x 50	8	47	21	2	4	23	11	
3 X 2½	80 x 65	8	52	24	2	4	26	12	
4 X 2†	100 x 50	4	38	17					
4 X 3	100 x 80	4	40	18					
90° Street Elbow: Fig. 1170 (Pg. pf-69)									
¼	8	60	10.0	4.5	2	30	5.1	2.3	
⅜	10	30	8.0	3.6	2	15	3.9	1.8	
½	15	160	75	34	8	20	9.4	4.3	❑blk
¾	20	100	68	31	4	25	17	7.7	❑blk
1	25	60	62	28	4	15	16	7.1	
1¼	32	30	48	22	2	15	24	11	
1½	40	20	44	20	2	10	22	10	
2	50	8	29	13	2	4	14	6.5	
3	80	4	38	17	2	2	19	8.7	

Size		Master Containers				Cartons			
		No. Pcs	Weight.		No. Bags/ Cartons	No Pcs	▲Wt.		Sold Box Only
(NPS)	DN		Lbs	kg			Lbs	kg	
150 lb. Union: Fig. 463 (Pg. pf-72)									
⅛	6	75	11	5.0	3	25	3.6	1.6	
¼	8	160	72	33	4	40	18	8.2	❑blk
⅜	10	160	67	30	4	40	17	7.6	
½	15	160	70	32	4	40	18	8.0	❑
¾	20	120	74	34	4	30	18	8.3	❑
1	25	60	55	25	4	15	14	6.2	❑
1¼	32	32	45	20	4	8	11	5.1	❑
1½	40	30	51	23	2	15	25	12	❑
2	50	24	61	28	2	12	31	14	❑
150 lb. Union: Fig. 463R (Pg. pf-72)									
¾ X ½	20 x 15	120	66	30	4	30	17	7.5	
250 lb. Union: Fig. 554 (Pg. pf-72)									
⅛	6	75	11	5.0	3	25	3.5	1.6	
¼	8	160	72	33	4	40	18	8.2	
⅜	10	200	74	34	8	25	9.3	4.2	
½	15	120	64	29	4	30	16	7.2	
¾	20	80	64	29	4	20	16	7.3	
1	25	40	51	23	2	20	26	12	
1¼	32	30	49	22	2	15	25	11	
1½	40	30	62	28	2	15	31	14	
2	50	9	31	14	1	9	31	14	
300 lb. Union: Fig. 459 (Pg. pf-72)									
⅛	6	75	11	5.0	3	25	3.5	1.6	
¼	8	160	72	33	4	40	18	8.2	
⅜	10	200	86	39	8	25	11	4.9	
½	15	120	64	29	8	15	8.0	3.6	❑blk
¾	20	80	64	29	4	20	16	7.3	❑blk
1	25	40	51	23	4	10	13	5.8	❑blk
1¼	32	40	65	29	2	20	33	15	❑blk
1½	40	24	49	22	2	12	25	11	❑blk
2	50	18	73	33	2	9	37	17	❑blk
Dart Union: Fig. 832 (Pg. pf-106)									
⅜	10	160	66	30	8	20	8.2	3.7	
½	15	120	77	35	8	15	9.6	4.4	
¾	20	60	47	21	2	30	23	11	
1	25	40	52	24	4	10	13	5.9	
1¼	32	24	45	20	2	12	23	10	
1½	40	24	57	26	2	12	28	13	
2	50	14	55	25	2	7	27	12	

▲Weights shown are for black; †Black only; ■ Galvanized Only

❑blk - Sold in box only for Black finish, ❑gal - Sold in box only for Galvanized finish, ❑ - Sold in box only for both finish

Palleted Malleable Iron Fittings (black or galvanized)

Size		Pcs./Carton	▲Wt./Carton		No. Cartons	No. Pcs	▲Wt./ pallet	
NPS	DN		Lbs	Kg			Lbs	Kg
Hex Bushing: Fig. 383 (Pg. pf-89)								
¾ x ⅛	20 x 6	80	10.0	4.5	177	14,160	1,699	771
¾ x ¼ ❑blk	20 x 8	75	11	5.0	177	13,275	1,859	843
¾ x ⅜ ❑blk	20 x 10	75	8.0	3.6	177	13,275	1,460	662
¾ x ½ ❑	20 x 15	75	7.0	3.2	177	13,275	1,195	542
1 x ⅛	25 x 6	50	12	5.4	177	8,850	2,124	963
1 x ¼ ❑blk	25 x 8	50	9.0	4.1	177	8,850	1,593	723
1 x ⅜	25 x 10	50	9.0	4.1	177	8,850	1,593	723
1 x ½ ❑	25 x 15	200	37	17	27	5,400	1,004	455
1 x ¾ ❑	25 x 20	200	32	15	27	5,400	864	392
1¼ x ¼	32 x 8	160	53	24	27	4,320	1,426	647
1¼ x ⅜	32 x 10	200	54	24	27	5,400	1,458	661
1¼ x ½	32 x 15	140	48	22	27	3,780	1,285	583
1¼ x ¾ ❑	32 x 20	140	55	25	27	3,780	1,474	669
1¼ x 1 ❑	32 x 25	200	60	27	27	5,400	1,620	735
1½ x 1¼ ❑	40 x 32	120	36	16	27	3,240	972	441
2 x 1½ ❑	50 x 40	80	51	23	27	2,160	1,382	627
2½ x 2 ❑gal	65 x 50	40	41	19	27	1,080	1,102	500
Face Bushing: Fig. 385 (Pg. pf-90)								
¾ x ⅜†	20 x 10	800	64	29	27	21,600	1,728	784
¾ x ½	20 x 15	800	48	22	27	21,600	1,296	588
1 x ½	25 x 15	400	64	29	27	10,800	1,728	784
1 x ¾	25 x 20	400	40	18	27	10,800	1,080	490
1¼ x ½	32 x 15	240	72	33	27	6,480	1,944	882
1¼ x ¾	32 x 20	240	65	29	27	6,480	1,750	794
1¼ x 1	32 x 25	280	53	24	27	7,560	1,436	651
1½ x ½	40 x 15	160	64	29	27	4,320	1,728	784
1½ x ¾†	40 x 20	160	62	28	27	4,320	1,685	764
1½ x 1†	40 x 25	200	66	30	27	5,400	1,782	808
1½ x 1¼	40 x 32	200	32	15	27	5,400	864	392
2 x 1	50 x 25	100	65	29	27	2,700	1,755	796
2 x 1¼	50 x 32	100	53	24	27	2,700	1,431	649
2 x 1½	50 x 40	120	48	22	27	3,240	1,296	588
2½ x 1¼	65 x 32	60	66	30	27	1,620	1,782	808
2½ x 1½	65 x 40	60	56	25	27	1,620	1,507	684
2½ x 2	65 x 50	60	24	11	27	1,620	648	294
3 x 2½	80 x 65	40	40	18	27	1,080	1,069	485
Bar Plugs (Countersunk): Fig. 390 (Pg. pf-91)								
½	15	200	10.0	4.5	177	35,400	1,770	803
¾	20	100	11	5.0	177	17,700	1,947	883
Class 300 Union: Fig. 459 (Pg. pf-72)								
⅛	6	75	11	5.0	177	13,275	1,859	843
¼	8	160	72	33	27	4,320	1,944	882
⅜	10	200	86	39	27	5,400	2,322	1,053
½	15	120	64	29	27	3,240	1,717	779
¾	20	80	64	29	27	2,160	1,728	784
1	25	40	51	23	27	1,080	1,378	625
1¼	32	40	65	29	27	1,080	1,764	800
1½	40	24	49	22	27	648	1,328	602
2	50	18	73	33	27	486	1,983	899

▲Weights shown are for black; †Black only; ■ Galvanized Only, ❑blk - Sold in box only for Black finish, ❑gal - Sold in box only for Galvanized finish, ❑ - Sold in box only for both finish

Palleted
Malleable Iron Fittings
(black or galvanized) (cont.)

Size		Pcs./Carton	▲Wt./Carton		No. Cartons	No. Pcs	▲Wt./ pallet	
NPS	DN		Lbs	Kg			Lbs	Kg
Class 150 Union: Fig. 463 (Pg. pf-72)								
⅛	6	75	11	5.0	177	13,275	1,925	873
¼	8	160	72	33	27	4,320	1,944	882
⅜	10	160	67	30	27	4,320	1,814	823
½	15	160	70	32	27	4,320	1,901	862
¾	20	120	72	33	27	3,240	1,944	882
1	25	60	55	25	27	1,620	1,474	669
1¼	32	32	46	21	27	864	1,253	568
1½	40	30	51	23	27	810	1,369	621
2	50	24	59	27	27	648	1,594	723
Class 150 Union: Fig. 463R (Pg. pf-72)								
¾ X ½	20 x 15					120		
Class 250 Union: Fig. 554 (Pg. pf-72)								
⅛	6	75	11	5.0	177	13,275	1,859	843
¼	8	160	72	33	27	4,320	1,944	882
⅜	10	200	74	34	27	5,400	1,998	906
½	15	120	64	29	27	3,240	1,717	779
¾	20	80	64	29	27	2,160	1,728	784
1	25	40	51	23	27	1,080	1,382	627
1¼	32	30	49	22	27	810	1,257	570
1½	40	30	62	28	27	810	1,123	509
2	50	9	31	14	60	540	1,879	852
90° Elbow: Fig. 1101 (Pg. pf-58)								
⅛	6	105	6.0	2.7	177	18,585	1,115	506
¼	8	75	8.0	3.6	177	13,275	1,460	662
⅜	10	40	7.0	3.2	177	7,080	1,204	546
½	15	200	60	27	27	5,400	1,620	735
¾	20	140	63	29	27	3,780	1,701	772
1	25	80	58	26	27	2,160	1,577	715
1¼	32	48	47	21	27	1,296	1,257	570
1½	40	32	42	19	27	864	1,123	509
2	50	20	41	19	27	540	1,112	504
2½	65	10	37	17	27	270	986	447
3	80	8	44	20	27	216	1,179	535
3½	90	6	43	20	27	162	1,150	522
4	100	5	43	20	27	135	1,162	527
Dart Union Figure 832 (Pg. pf-106)								
⅜	10	160	66	30	27	4,320	1,771	803
½	15	120	77	35	27	3,240	2,074	941
¾	20	60	47	21	27	1,620	1,264	573
1	25	40	52	24	27	1,080	1,404	637
1¼	32	24	45	20	27	648	1,225	556
1½	40	24	57	26	27	648	1,536	697
2	50	14	55	25	27	378	1,478	670

▲Weights shown are for black; † Black only; ■ Galvanized Only

Palleted
Malleable Iron Fittings
(black or galvanized) (cont.)

Size		Pcs./Carton	▲Wt./Carton		No. Cartons	No. Pcs	▲Wt./ pallet	
NPS	DN		Lbs	Kg			Lbs	Kg
90° Reducing Elbow: Figure 1101R (Pg. pf-59)								
¼ x ⅛	8 x 6	100	10.0	4.5	177	17,700	1,770	803
⅜ x ⅛	10 x 6	75	9.0	4.1	177	13,275	1,593	723
⅜ x ¼	10 x 8	50	7.0	3.2	177	8,850	1,239	562
½ x ¼	15 x 8	30	6.0	2.7	177	5,310	1,009	458
½ x ⅜	15 x 10	300	66	30	27	8,100	1,782	808
¾ x ¼	20 x 8	24	6.0	2.7	177	4,248	1,104	501
¾ x ⅜	20 x 10	160	46	21	27	4,320	1,253	568
¾ x ½	20 x 15	180	68	31	27	4,860	1,847	838
1 x ⅜	25 x 10	120	49	22	27	3,240	1,328	602
1 x ½	25 x 15	100	46	21	27	2,700	1,242	563
1 x ¾	25 x 20	80	45	20	27	2,160	1,210	549
1¼ x ½	32 x 15	80	49	22	27	2,160	1,318	598
1¼ x ¾	32 x 20	60	43	20	27	1,620	1,150	522
1¼ x 1	32 x 25	60	52	24	27	1,620	1,409	639
1½ x ¾	40 x 20	48	40	18	27	1,296	1,076	488
1½ x 1	40 x 25	48	49	22	27	1,296	1,322	600
1½ x 1¼	40 x 32	32	37	17	27	864	1,011	459
2 x ¾	50 x 20	24	31	14	27	648	842	382
2 x 1	50 x 25	30	41	19	27	810	1,094	496
2 x 1¼	50 x 32	24	37	17	27	648	991	450
2 x 1½	50 x 40	24	42	19	27	648	1,134	514
2½ x 1½	65 x 40	12	30	14	27	324	823	373
2½ x 2	65 x 50	10	30	14	27	270	805	365
3 x 2	80 x 50	8	30	14	27	216	816	370
3 x 2½	80 x 65	8	34	15	27	216	929	421
4 x 3	100 x 80	4	31	14	27	108	842	382
45° Elbow: Fig. 1102 (Pg. pf-58)								
⅛	6	150	11	5.0	177	26,550	1,859	843
¼	8	70	8.0	3.6	177	12,390	1,363	618
⅜	10	40	6.0	2.7	177	7,080	1,133	514
½	15	300	66	30	27	8,100	1,782	808
¾	20	160	59	27	27	4,320	1,598	725
1	25	100	54	24	27	2,700	1,458	661
1¼	32	60	52	24	27	1,620	1,393	632
1½	40	32	36	16	27	864	976	443
2	50	24	43	20	27	648	1,160	526
2½	65	10	28	13	27	270	751	341
3	80	8	36	16	27	216	968	439
4	100	4	30	14	27	108	799	362

▲Weights shown are for black; † Black only; ■ Galvanized Only

Palleted
Malleable Iron Fittings
(black or galvanized) (cont.)

ANVIL INTERNATIONAL, INC.

Size		Pcs./Carton	▲Wt./Carton		No. Cartons	No. Pcs	▲Wt./ pallet	
NPS	*DN*		Lbs	*Kg*			Lbs	*Kg*
90° Street Elbow: Fig. 1103 (Pg. pf-60)								
⅛	6	120	7.0	3.2	177	21,240	1,274	578
¼	8	90	9.0	4.1	177	15,930	1,593	723
⅜	10	40	7.0	3.2	177	7,080	1,204	546
½	15	300	84	38	27	8,100	2,268	1,029
¾	20	160	66	30	27	4,320	1,771	803
1	25	60	37	17	27	1,620	1,004	455
1¼	32	40	44	20	27	1,080	1,177	534
1½	40	32	46	21	27	864	1,244	564
2	50	20	57	26	27	540	1,539	698
2½	65	8	32	15	27	216	864	392
3	80	4	24	11	27	108	654	297
4	100	4	42	19	27	108	1,137	516
90° Street Elbow: Figure 1103R (Pg. pf-60)								
½ x ⅜	15 x 10	280	64	29	27	7,560	1,739	789
¾ x ½	20 x 15	200	64	29	27	5,400	1,728	784
1 x ¾	25 x 20	100	54	24	27	2,700	1,458	661
1¼ x ¾	32 x 20	60	45	20	27	1,620	1,215	551
1¼ x 1	32 x 25	60	52	24	27	1,620	1,393	632
1½ x 1	40 x 25	40	43	20	27	1,080	1,166	529
1½ x 1¼	40 x 32	40	47	21	27	1,080	1,274	578
2 x 1½	50 x 40	24	44	20	27	648	1,199	544
45° Street Elbow: Fig. 1104 (Pg. pf-59)								
⅛	6	150	9.0	4.1	177	26,550	1,593	723
¼	8	100	10.0	4.5	177	17,700	1,770	803
⅜	10	50	7.0	3.2	177	8,850	1,239	562
½	15	300	60	27	27	8,100	1,620	735
¾	20	160	53	24	27	4,320	1,426	647
1	25	100	52	24	27	2,700	1,404	637
1¼	32	60	51	23	27	1,620	1,377	625
1½	40	40	49	22	27	1,080	1,318	598
2	50	24	46	21	27	648	1,244	564
Straight Tee: Fig. 1105 (Pg. pf-60)								
⅛	6	75	7.0	3.2	177	13,275	1,195	542
¼	8	40	6.0	2.7	177	7,080	1,062	482
⅜	10	30	7.0	3.2	177	5,310	1,221	554
½	15	160	66	30	27	4,320	1,771	803
¾	20	80	54	24	27	2,160	1,447	656
1	25	48	43	20	27	1,296	1,166	529
1¼	32	32	42	19	27	864	1,132	513
1½	40	20	35	16	27	540	934	424
2	50	20	50	23	27	540	1,361	617
2½	65	8	39	18	27	216	1,058	480
3	80	6	42	19	27	162	1,145	519
3½†	90	4	36	16	27	108	972	441
4	100	4	45	20	27	108	1,223	555

▲Weights shown are for black; †Black only; ■ Galvanized Only

Palleted
Malleable Iron Fittings
(black or galvanized) (cont.)

Size		Pcs./Carton	▲Wt./Carton		No. Cartons	No. Pcs	▲Wt./ pallet	
NPS	DN		Lbs	Kg			Lbs	Kg
Reducing Tee: Figure 1105R (Pg. pf-61)								
⅛ x ⅛ x ¼	6 x 6 x 8	50	6.0	2.7	177	8,850	1,062	482
¼ x ¼ x ⅛	8 x 8 x 6	50	7.0	3.2	177	8,850	1,151	522
¼ x ¼ x ⅜	8 x 8 x 10	30	6.0	2.7	177	5,310	1,009	458
⅜ x ¼ x ¼	10 x 8 x 8	30	6.0	2.7	177	5,310	1,009	458
⅜ x ¼ x ⅜	10 x 8 x 10	30	6.0	2.7	177	5,310	1,115	506
⅜ x ⅜ x ¼	10 x 10 x 8	30	6.0	2.7	177	5,310	1,115	506
⅜ x ⅜ x ½	10 x 10 x 15	20	5.0	2.3	177	3,540	956	434
½ x ¼ x ½	15 x 8 x 15	20	6.0	2.7	177	3,540	1,027	466
½ x ⅜ x ⅜	15 x 10 x 10	20	6.0	2.7	177	3,540	991	450
½ x ⅜ x ½	15 x 10 x 15	20	7.0	3.2	177	3,540	1,168	530
½ x ½ x ¼	15 x 15 x 8	20	5.0	2.3	177	3,540	956	434
½ x ½ x ⅜	15 x 15 x 10	200	60	27	27	5,400	1,620	735
½ x ½ x ¾	15 x 15 x 20	120	54	24	27	3,240	1,458	661
½ x ½ x 1	15 x 15 x 25	100	55	25	27	2,700	1,485	674
¾ x ¼ x ¾	20 x 8 x 20	120	54	24	27	3,240	1,458	661
¾ x ⅜ x ⅜†	20 x 10 x 10	140	50	23	27	3,780	1,361	617
¾ x ⅜ x ¾	20 x 10 x 20	100	46	21	27	2,700	1,242	563
¾ x ½ x ½	20 x 15 x 15	140	60	27	27	3,780	1,625	737
¾ x ½ x ¾	20 x 15 x 20	80	42	19	27	2,160	1,123	509
¾ x ¾ x ¼	20 x 20 x 8	140	53	24	27	3,780	1,436	651
¾ x ¾ x ⅜	20 x 20 x 10	120	50	23	27	3,240	1,361	617
¾ x ¾ x ½	20 x 20 x 15	80	38	17	27	2,160	1,015	460
¾ x ¾ x 1	20 x 20 x 25	60	37	17	27	1,620	1,004	455
¾ x ¾ x 1¼	20 x 20 x 32	40	36	16	27	1,080	972	441
1 x ¼ x 1	25 x 8 x 25	60	41	19	27	1,620	1,118	507
1 x ½ x ½	25 x 15 x 15	100	55	25	27	2,700	1,485	674
1 x ½ x ¾	25 x 15 x 20	80	45	20	27	2,160	1,210	549
1 x ½ x 1	25 x 15 x 25	60	46	21	27	1,620	1,231	558
1 x ¾ x ½	25 x 20 x 15	80	47	21	27	2,160	1,274	578
1 x ¾ x ¾	25 x 20 x 20	60	44	20	27	1,620	1,199	544
1 x ¾ x 1	25 x 20 x 25	60	47	21	27	1,620	1,264	573
1 x 1 x ¼	25 x 25 x 8	80	42	19	27	2,160	1,145	519
1 x 1 x ⅜	25 x 25 x 10	80	48	22	27	2,160	1,296	588
1 x 1 x ½	25 x 25 x 15	60	42	19	27	1,620	1,134	514
1 x 1 x ¾	25 x 25 x 20	60	49	22	27	1,620	1,328	602
1 x 1 x 1¼	25 x 25 x 32	40	37	17	27	1,080	994	451
1 x 1 x 1½	25 x 25 x 40	32	38	17	27	864	1,028	466
1 x 1 x 2	25 x 25 x 50	24	39	18	27	648	1,056	479
1¼ x ½ x 1	32 x 15 x 25	40	35	16	27	1,080	940	426
1¼ x ½ x 1¼	32 x 15 x 32	24	25	11	27	648	674	306
1¼ x ¾ x ¾	32 x 20 x 20	40	34	15	27	1,080	929	421
1¼ x ¾ x 1	32 x 20 x 25	40	36	16	27	1,080	983	446
1¼ x ¾ x 1¼	32 x 20 x 32	24	25	11	27	648	674	306
1¼ x 1 x ½	32 x 25 x 15	60	46	21	27	1,620	1,231	558
1¼ x 1 x ¾	32 x 25 x 20	40	35	16	27	1,080	940	426
1¼ x 1 x 1	32 x 25 x 25	40	44	20	27	1,080	1,199	544

▲Weights shown are for black; †Black only; ■ Galvanized Only

Palleted
Malleable Iron Fittings
(black or galvanized) (cont.)

ANVIL INTERNATIONAL, INC.

Size		Pcs./Carton	▲Wt./Carton		No. Cartons	No. Pcs	▲Wt./ pallet	
NPS	*DN*		Lbs	*Kg*			Lbs	*Kg*
Reducing Tee: Figure 1105R (continued)								
1¼ x 1 x 1¼	32 x 25 x 32	24	27	12	27	648	732	332
1¼ x 1¼ x ⅜	32 x 32 x 10	40	34	15	27	1,080	929	421
1¼ x 1¼ x ½	32 x 32 x 15	40	39	18	27	1,080	1,058	480
1¼ x 1¼ x ¾	32 x 32 x 20	32	34	15	27	864	924	419
1¼ x 1¼ x 1	32 x 32 x 25	40	47	21	27	1,080	1,274	578
1¼ x 1¼ x 1½	32 x 32 x 40	30	44	20	27	810	1,175	533
1¼ x 1¼ x 2	32 x 32 x 50	24	41	19	27	648	1,102	500
1½ x ½ x 1½	40 x 15 x 40	30	40	18	27	810	1,077	489
1½ x ¾ x ¾	40 x 20 x 20	40	40	18	27	1,080	1,080	490
1½ x ¾ x 1½	40 x 20 x 40	30	42	19	27	810	1,142	518
1½ x 1 x 1	40 x 25 x 25	32	36	16	27	864	985	447
1½ x 1 x 1¼	40 x 25 x 32	30	39	18	27	810	1,053	478
1½ x 1 x 1½	40 x 25 x 40	30	45	20	27	810	1,215	551
1½ x 1¼ x ½	40 x 32 x 15	40	42	19	27	1,080	1,134	514
1½ x 1¼ x ¾	40 x 32 x 20	32	35	16	27	864	933	423
1½ x 1¼ x 1	40 x 32 x 25	32	40	18	27	864	1,089	494
1½ x 1¼ x 1¼	40 x 32 x 32	24	36	16	27	648	985	447
1½ x 1¼ x 1½	40 x 32 x 40	24	36	16	27	648	972	441
1½ x 1½ x ½	40 x 40 x 15	32	38	17	27	864	1,028	466
1½ x 1½ x ¾	40 x 40 x 20	24	32	15	27	648	855	388
1½ x 1½ x 1	40 x 40 x 25	24	35	16	27	648	940	426
1½ x 1½ x 1¼	40 x 40 x 32	24	35	16	27	648	940	426
1½ x 1½ x 2	40 x 40 x 50	24	45	20	27	648	1,205	547
2 x ½ x 2	50 x 15 x 50	20	43	20	27	540	1,161	527
2 x ¾ x 2	50 x 20 x 50	20	40	18	27	540	1,080	490
2 x 1 x 2	50 x 25 x 50	20	43	20	27	540	1,156	524
2 x 1¼ x 1¼	50 x 32 x 32	20	34	15	27	540	929	421
2 x 1¼ x 1½	50 x 32 x 40	20	37	17	27	540	999	453
2 x 1¼ x 2	50 x 32 x 50	20	44	20	27	540	1,188	539
2 x 1½ x 1	50 x 40 x 25	24	38	17	27	648	1,017	461
2 x 1½ x 1¼	50 x 40 x 32	20	35	16	27	540	950	431
2 x 1½ x 1½	50 x 40 x 40	20	39	18	27	540	1,053	478
2 x 1½ x 2	50 x 40 x 50	16	36	16	27	432	968	439
2 x 2 x ½	50 x 50 x 15	30	50	23	27	810	1,337	606
2 x 2 x ¾	50 x 50 x 20	24	45	20	27	648	1,212	550
2 x 2 x 1	50 x 50 x 25	24	42	19	27	648	1,140	517
2 x 2 x 1¼	50 x 50 x 32	20	47	21	27	540	1,269	576
2 x 2 x 1½	50 x 50 x 40	20	51	23	27	540	1,377	625
2 x 2 x 2½	50 x 50 x 65	12	42	19	27	324	1,134	514
2½ x 1½ x 2	65 x 40 x 50	12	41	19	27	324	1,111	504
2½ x 1½ x 2½	65 x 40 x 65	12	46	21	27	324	1,231	558
2½ x 2 x 2	65 x 50 x 50	12	39	18	27	324	1,063	482
2½ x 2 x 2½	65 x 50 x 65	8	32	15	27	216	875	397
2½ x 2½ x ¾	65 x 65 x 20	12	33	15	27	324	881	400
2½ x 2½ x 1	65 x 65 x 25	12	34	15	27	324	923	419
2½ x 2½ x 1¼	65 x 65 x 32	12	40	18	27	324	1,079	489
2½ x 2½ x 1½	65 x 65 x 40	12	42	19	27	324	1,121	508

▲Weights shown are for black; † Black only; ■ Galvanized Only

Palleted Malleable Iron Fittings (black or galvanized) (cont.)

Size		Pcs./Carton	▲Wt./Carton		No. Cartons	No. Pcs	▲Wt./ pallet	
NPS	DN		Lbs	Kg			Lbs	Kg
Reducing Tee: Figure 1105R (continued)								
2½ x 2½ x 2	65 x 65 x 50	12	44	20	27	324	1,183	537
2½ x 2½ x 3	65 x 65 x 80	8	47	21	27	216	1,257	570
3 x 2 x 2	80 x 50 x 50	8	36	16	27	216	966	438
3 x 2 x 3	80 x 50 x 80	8	46	21	27	216	1,248	566
3 x 2½ x 2	80 x 65 x 50	8	38	17	27	216	1,037	470
3 x 2½ x 2½	80 x 65 x 65	8	46	21	27	216	1,253	568
3 x 3 x ¾	80 x 80 x 20	8	32	15	27	216	870	395
3 x 3 x 1	80 x 80 x 25	8	33	15	27	216	892	405
3 x 3 x 1¼	80 x 80 x 32	8	36	16	27	216	972	441
3 x 3 x 1½	80 x 80 x 40	8	42	19	27	216	1,121	508
3 x 3 x 2	80 x 80 x 50	8	46	21	27	216	1,231	558
3 x 3 x 2½	80 x 80 x 65	8	49	22	27	216	1,315	596
4 x 4 x 1½	100 x 100 x 40	4	30	14	27	108	1,123	509
4 x 4 x 2	100 x 100 x 50	4	34	15	27	108	807	366
4 x 4 x 2½	100 x 100 x 65	4	38	17	27	108	906	411
4 x 4 x 3■	100 x 100 x 80	4	42	19	27	108	1,034	469
Street or Service Tee: Fig. 1106 (Pg. pf-64)								
¼	8	50	8.0	3.6	177	8,850	1,328	602
⅜	10	24	6.0	2.7	177	4,248	1,020	463
½	15	120	41	19	27	3,240	1,102	500
¾	20	60	37	17	27	1,620	988	448
1	25	40	38	17	27	1,080	1,037	470
1¼	32	24	33	15	27	648	901	409
1½	40	24	46	21	27	648	1,251	567
2	50	16	51	23	27	432	1,365	619
Street or Service Tee: Fig. 1106R (Pg. pf-64)								
1¼ x 1 x 1¼†	32 x 25 x 32	32						
Cross: Fig. 1107 (Pg. pf-65)								
⅛	6	50	6.0	2.7	177	8,850	1,062	482
¼	8	30	5.0	2.3	177	5,310	956	434
⅜	10	160	45	20	27	4,320	1,210	549
½	15	120	50	23	27	3,240	1,361	617
¾	20	60	41	19	27	1,620	1,118	507
1	25	40	45	20	27	1,080	1,210	549
1¼	32	30	43	20	27	810	1,166	529
1½	40	20	40	18	27	540	1,069	485
2	50	16	53	24	27	432	1,426	647
2½	65	8	41	19	27	216	1,118	507
3	80	4	32	15	27	108	858	389
4	100	4						
45° Y Branch: Fig. 1108 (Pg. pf-64)								
⅜	10	24	6.0	2.7	177	4,248	1,147	520
½	15	140	52	24	27	3,780	1,399	635
¾	20	80	50	23	27	2,160	1,339	607
1	25	40	34	15	27	1,080	929	421
1¼	32	24	39	18	27	648	1,056	479
1½	40	20	40	18	27	540	1,080	490
2	50	12	37	17	27	324	988	448
2½	65	4	23	10	27	108	633	287

▲Weights shown are for black; †Black only; ■ Galvanized Only

Palleted
Malleable Iron Fittings
(black or galvanized) (cont.)

Size		Pcs./Carton	▲Wt./Carton		No. Cartons	No. Pcs	▲Wt./ pallet	
NPS	DN		Lbs	Kg			Lbs	Kg
Return Bends: Fig. 1119 (Pg. pf-66)								
½†	15	160	58	26	27	4,320	1,555	705
¾†	20	80	51	23	27	2,160	1,382	627
1	25	40	44	20	27	1,080	1,188	539
1¼†	32	24	42	19	27	648	1,147	520
1½†	40	20	51	23	27	540	1,377	625
2	50	12	48	22	27	324	1,296	588
Coupling: Fig. 1121 (Pg. pf-65)								
⅛	6	160	10.0	4.5	177	28,320	1,699	771
¼	8	105	9.0	4.1	177	18,585	1,673	759
⅜	10	60	8.0	3.6	177	10,620	1,381	626
½	15	40	8.0	3.6	177	7,080	1,416	642
¾	20	240	72	33	27	6,480	1,944	882
1	25	100	48	22	27	2,700	1,296	588
1¼	32	60	45	20	27	1,620	1,215	551
1½	40	40	40	18	27	1,080	1,080	490
2	50	20	29	13	27	540	783	355
2½	65	24	58	26	27	648	1,555	705
3	80	8	26	12	27	216	713	323
4	100	8	46	21	27	216	1,236	561
Cap: Fig. 1124 (Pg. pf-66)								
½	15	300	36	16	27	8,100	972	441
¾	20	240	53	24	27	6,480	1,426	647
1	25	140	53	24	27	3,780	1,436	651
1¼	32	100	58	26	27	2,700	1,566	710
1½	40	80	58	26	27	2,160	1,577	715
2	50	48	54	24	27	1,296	1,464	664
2½	65	30	53	24	27	810	1,418	643
3	80	24	63	29	27	648	1,698	770
3½	90	16	51	23	27	432	1,378	625
4	100	8	36	16	27	216	981	445
5	125	8	52	24	27	216	1,393	632
Reducer: Fig. 1125 (Pg. pf-66)								
¼ x ⅛	8 x 6	100	7.0	3.2	177	17,700	1,239	562
⅜ x ⅛	10 x 6	90	10.0	4.5	177	15,930	1,752	795
⅜ x ¼	10 x 8	75	8.0	3.6	177	13,275	1,460	662
½ x ⅛	15 x 6	40	6.0	2.7	177	7,080	991	450
½ x ¼	15 x 8	50	8.0	3.6	177	8,850	1,328	602
½ x ⅜	15 x 10	50	9.0	4.1	177	8,850	1,505	683
¾ x ¼	20 x 8	24	5.0	2.3	177	4,248	935	424
1¼ x ½	32 x 15	60	37	17	27	1,620	988	448
1½ x 1¼	40 x 32	40	36	16	27	1,080	972	441
2 x ¾	50 x 20	20	27	12	27	540	724	328
2 x 1	50 x 25	20	28	13	27	540	756	343
2 x 1¼	50 x 32	20	31	14	27	540	826	375
2 x 1½	50 x 40	20	31	14	27	540	837	380
2½ x 1½	65 x 40	14	29	13	27	378	790	358
3 x 1	80 x 25	10	32	15	27	270	853	387
3 x 1¼	80 x 32	8	24	11	27	216	646	293
3 x 1½	80 x 40	8	24	11	27	216	653	296
3 x 2	80 x 50	10	34	15	27	270	921	418

▲Weights shown are for black; † Black only; ■ Galvanized Only

Palleted
Malleable Iron Fittings
(black or galvanized) (cont.)

Size		Pcs./Carton	▲Wt./Carton		No. Cartons	No. Pcs	▲Wt./ pallet	
NPS	DN		Lbs	Kg			Lbs	Kg
Reducer: Fig. 1125 (Continued)								
3 x 2½	80 x 65	10	33	15	27	270	894	406
3½ x 2	90 x 50	8	35	16	27	216	933	423
4 x 1½	100 x 40	4	20	9.1	27	108	529	240
4 x 2	100 x 50	4	20	9.1	27	108	551	250
4 x 2½	100 x 65	4	24	11	27	108	640	290
4 x 3	100 x 80	4	26	12	27	108	707	321
4 x 3½	100 x 90	4	25	11	27	108	680	308
¾ x ⅛	20 x 6	160	38	17	27	4,320	1,037	470
¾ x ⅜	20 x 10	200	50	23	27	5,400	1,350	612
¾ x ½	20 x 15	240	65	29	27	6,480	1,750	794
1 x ¼	25 x 8	160	56	25	27	4,320	1,512	686
1 x ⅜	25 x 10	160	56	25	27	4,320	1,512	686
1 x ½	25 x 15	180	70	32	27	4,860	1,895	860
1 x ¾	25 x 20	140	60	27	27	3,780	1,625	737
1¼ x ¾	32 x 20	80	51	23	27	2,160	1,382	627
1¼ x 1	32 x 25	80	54	24	27	2,160	1,469	666
1½ x ½	40 x 15	60	47	21	27	1,620	1,264	573
1½ x ¾	40 x 20	60	53	24	27	1,620	1,426	647
1½ x 1	40 x 25	60	53	24	27	1,620	1,426	647
2 x ½	50 x 15	40	52	24	27	1,080	1,404	637
2½ x 1	65 x 25	20	42	19	27	540	1,145	519
2½ x 1¼	65 x 32	20	42	19	27	540	1,129	512
2½ x 2	65 x 50	16	40	18	27	432	1,084	492
3½ x 3	90 x 80	8	40	18	27	216	1,078	489
Waste Nut: Fig. 1133 (Pg. pf-67)								
¼†	8	150	8.0	3.6	20	3,000	150	68
½†	15	100	12	5.4	177	17,700	2,124	963
¾	20	50	8.0	3.6	177	8,850	1,328	602
Hex Lock Nut: Fig. 1134 (Pg. pf-65)								
¼	8	200	4.0	1.8	177	35,400	708	321
⅜	10	200	8.0	3.6	177	35,400	1,416	642
½	15	150	9.0	4.1	177	26,550	1,593	723
¾	20	100	8.0	3.6	177	17,700	1,416	642
1	25	50	7.0	3.2	177	8,850	1,239	562
1¼	32	200	42	19	27	5,400	1,134	514
1½	40	120	29	13	27	3,240	778	353
2	50	100	40	18	27	2,700	1,080	490
Extension Piece: Fig. 1137 (Pg. pf-67)								
⅜	10	50	5.0	2.3	27	1,350	135	61
½	15	40	6.0	2.7	177	7,080	1,062	482
¾	20	240	62	28	27	6,480	1,685	764
1	25	120	50	23	27	3,240	1,361	617
45° Street Elbow: Fig. 1160 (Pg. pf-68)								
½†	15	24	9.0	4.1	177	4,248	1,529	694
¾†	20	120	65	29	27	3,240	1,750	794
1†	25	60	51	23	27	1,620	1,377	625
1¼†	32	40	60	27	27	1,080	1,620	735
1½†	40	24	49	22	27	648	1,335	606
2†	50	16	53	24	27	432	1,443	655

▲Weights shown are for black; †Black only; ■ Galvanized Only

Palleted
Malleable Iron Fittings
(black or galvanized) (cont.)

ANVIL INTERNATIONAL, INC.

Size		Pcs./Carton	▲Wt./Carton		No. Cartons	No. Pcs	▲Wt./ pallet	
NPS	*DN*		Lbs	*Kg*			Lbs	*Kg*
90° Elbow: Fig. 1161 (Pg. pf-68)								
¼	8	40	8.0	3.6	177	7,080	1,416	642
⅜	10	30	9.0	4.1	177	5,310	1,540	699
½	15	160	75	34	27	4,320	2,030	921
¾	20	80	53	24	27	2,160	1,426	647
1	25	60	69	31	27	1,620	1,863	845
1¼	32	26	49	22	27	702	1,327	602
1½	40	20	49	22	27	540	1,334	605
2	50	12	45	20	27	324	1,228	557
2½	65	6	39	18	27	162	1,055	479
3	80	4	40	18	27	108	1,075	488
90° Reducing Elbow: Figure 1161R (Pg. pf-68)								
⅜ x ¼†	10 x 8	50	13	5.9	27	1,350	351	159
½ x ⅜†	15 x 10	50	21	10	27	1,350	554	251
¾ x ½	20 x 15	40	25	11	27	1,080	670	304
1 x ½	25 x 15	40	35	16	27	1,080	940	426
1 x ¾†	25 x 20	40	40	18	27	1,080	1,080	490
1¼ x ¾†	32 x 20	30	42	19	27	810	1,142	518
1¼ x 1†	32 x 25	30	48	22	27	810	1,296	588
1½ x 1†	40 x 25	20	38	17	27	540	1,021	463
1½ x 1¼†	40 x 32	20	43	20	27	540	1,161	527
2 x 1¼†	50 x 32	10	31	14	27	270	842	382
2 x 1½†	50 x 40	10	33	15	27	270	891	404
45° Elbow: Fig. 1162 (Pg. pf-69)								
¼	8	50	10.0	4.5	177	8,850	1,682	763
⅜	10	30	8.0	3.6	177	5,310	1,487	674
½	15	20	9.0	4.1	177	3,540	1,522	690
¾	20	96	63	29	27	2,592	1,711	776
1	25	60	60	27	27	1,620	1,620	735
1¼	32	30	50	23	27	810	1,353	614
1½	40	22	47	21	27	594	1,277	579
2	50	12	41	19	27	324	1,102	500
2½	65	8	44	20	27	216	1,190	540
3	80	6	49	22	27	162	1,312	595
4†	100	3	40	18	27	81	1,086	493
Cap: Fig. 1163 (Pg. pf-71)								
¼	8	120	12	5.4	177	21,240	2,124	963
⅜	10	75	11	5.0	177	13,275	1,991	903
½	15	30	7.0	3.2	177	5,310	1,221	554
¾	20	24	8.0	3.6	177	4,248	1,487	674
1	25	120	70	32	27	3,240	1,879	852
1¼	32	80	75	34	27	2,160	2,030	921
1½	40	40	47	21	27	1,080	1,274	578
2	50	32	62	28	27	864	1,676	760
2½	65	20	66	30	27	540	1,793	813
3	80	16	75	34	27	432	2,035	923

▲Weights shown are for black; †Black only; ■ Galvanized Only

Palleted
Malleable Iron Fittings
(black or galvanized) (cont.)

Size		Pcs./Carton	▲Wt./Carton		No. Cartons	No. Pcs	▲Wt./ pallet	
NPS	DN		Lbs	Kg			Lbs	Kg
Straight Tee: Fig. 1164(Pg. pf-70)								
¼	8	30	8.0	3.6	177	5,310	1,434	650
⅜	10	20	8.0	3.6	177	3,540	1,487	674
½	15	100	65	29	27	2,700	1,755	796
¾	20	60	64	29	27	1,620	1,733	786
1	25	40	65	29	27	1,080	1,750	794
1¼	32	20	50	23	27	540	1,345	610
1½	40	14	48	22	27	378	1,285	583
2	50	10	52	24	27	270	1,404	637
2½	65	4	34	15	27	108	909	412
3	80	4	50	23	27	108	1,347	611
Reducing Tee: Fig. 1164R (Pg. pf-70)								
⅜ x ⅜ x ¼†	10 x 10 x 8	120	44	20	27	3,240	1,231	558
½ x ½ x ¼†	15 x 15 x 8	104	50	23	27	2,808	1,226	556
½ x ½ x ¾†	15 x 15 x 20	52	42	19	27	1,404	1,264	573
¾ x ½ x ¾	20 x 15 x 20	52	48	22	27	1,404	1,215	551
¾ x ¾ x ¼	20 x 20 x 8	60	46	21	27	1,620	913	414
¾ x ¾ x ⅜†	20 x 20 x 10	52	42	19	27	1,404	1,196	542
¾ x ¾ x ½†	20 x 20 x 15	52	47	21	27	1,404	1,242	563
1 x ¾ x ¾†	25 x 20 x 20	40	51	23	27	1,080	1,037	470
1 x ½ x 1†	25 x 15 x 25	36	49	22	27	972	1,348	611
1 x ¾ x 1	25 x 20 x 25	36	50	23	27	972	1,306	592
1 x 1 x ¼†	25 x 25 x 8	36	39	18	27	972	1,322	600
1 x 1 x ½	25 x 25 x 15	40	50	23	27	1,080	1,341	608
1 x 1 x ¾†	25 x 25 x 20	40	53	24	27	1,080	1,361	617
1¼ x 1 x 1†	32 x 25 x 25	28	54	24	27	756	1,361	617
1¼ x 1¼ x ½	32 x 32 x 15	30	51	23	27	810	1,328	602
1¼ x 1¼ x ¾	32 x 32 x 20	24	46	21	27	648	1,482	672
1¼ x 1¼ x 1	32 x 32 x 25	24	50	23	27	648	1,372	622
1½ x 1½ x ½	40 x 40 x 15	20	45	20	27	540	1,436	651
1½ x 1½ x ¾	40 x 40 x 20	20	49	22	27	540	1,452	659
1½ x 1½ x 1	40 x 40 x 25	18	47	21	27	486	1,377	625
1½ x 1½ x 1¼†	40 x 40 x 32	18	55	25	27	486	1,542	699
2 x 1½ x 2†	50 x 40 x 50	10	45	20	27	270	1,367	620
2 x 2 x ½	50 x 50 x 15	10	34	15	27	270	1,372	622
2 x 2 x ¾	50 x 50 x 20	16	57	26	27	432	–	–
2 x 2 x 1	50 x 50 x 25	12	44	20	27	324	–	–
2 x 2 x 1¼	50 x 50 x 32	12	51	23	27	324	–	–
2 x 2 x 1½	50 x 50 x 40	10	46	21	27	270	–	–
2½ x 2½ x 1½†	65 x 65 x 40	8	51	23	27	216	–	–
3 x 3 x 2	80 x 80 x 50	4	38	17	27	108	–	–
Cross: Fig. 1165 (Pg. pf-69)								
⅜†	10	80	37	17	27	2,160	994	451
¾	20	50	63	29	27	1,350	1,688	766
1†	25	26	49	22	27	702	1,334	605
1¼†	32	16	52	24	27	432	1,395	633
1½†	40	12	50	23	27	324	1,361	617
2†	50	6	39	18	27	162	1,051	477

▲Weights shown are for black; †Black only; ■ Galvanized Only

Palleted
Malleable Iron Fittings
(black or galvanized) (cont.)

ANVIL INTERNATIONAL, INC.

Size		Pcs./Carton	▲Wt./Carton		No. Cartons	No. Pcs	▲Wt./ pallet	
NPS	*DN*		Lbs	*Kg*			Lbs	*Kg*
Coupling: Fig. 1166 (Pg. pf-71)								
¼	8	60	10.0	4.5	177	10,620	1,805	819
⅜	10	20	5.0	2.3	177	3,540	920	417
½	15	20	8.0	3.6	177	3,540	1,416	642
¾	20	96	62	28	27	2,592	1,685	764
1	25	64	63	29	27	1,728	1,711	776
1¼	32	30	49	22	27	810	1,325	601
1½	40	24	49	22	27	648	1,315	596
2	50	16	52	24	27	432	1,400	635
2½	65	10	55	25	27	270	1,472	668
3	80	6	44	20	27	162	1,183	537
Reducer: Fig. 1167 (Pg. pf-71)								
⅜ x ¼	10 x 8	48	10.0	4.5	177	8,496	1,784	809
½ x ¼	15 x 8	24	15	6.8	177	4,248	2,634	1,195
½ x ⅜	15 x 10	24	16	7.3	177	4,248	2,889	1,310
¾ x ¼	20 x 8	90	41	19	27	2,430	1,118	507
¾ x ⅜	20 x 10	90	42	19	27	2,430	1,142	518
¾ x ½	20 x 15	90	45	20	27	2,430	1,215	551
1 x ¼	25 x 8	60	40	18	27	1,620	1,069	485
1 x ⅜	25 x 10	80	57	26	27	2,160	1,534	696
1 x ½	25 x 15	80	57	26	27	2,160	1,534	696
1 x ¾	25 x 20	60	46	21	27	1,620	1,247	566
1¼ x ½	32 x 15	44	49	22	27	1,188	1,331	604
1¼ x ¾	32 x 20	48	56	25	27	1,296	1,503	682
1¼ x 1	32 x 25	48	61	28	27	1,296	1,646	747
1½ x ½	40 x 15	32	48	22	27	864	1,305	592
1½ x ¾	40 x 20	40	63	29	27	1,080	1,696	769
1½ x 1	40 x 25	32	52	24	27	864	1,400	635
1½ x 1¼	40 x 32	32	57	26	27	864	1,538	698
2 x ½†	50 x 15	24	57	26	27	648	1,549	703
2 x ¾	50 x 20	20	49	22	27	540	1,318	598
2 x 1	50 x 25	18	46	21	27	486	1,234	560
2 x 1¼	50 x 32	12	30	14	27	324	822	373
2 x 1½	50 x 40	20	54	24	27	540	1,469	666
2½ x 1½	65 x 40	8	33	15	27	216	883	401
2½ x 2	65 x 50	10	43	20	27	270	1,166	529
3 x 1½†	80 x 40	8	46	21	27	216	1,251	567
3 x 2	80 x 50	8	47	21	27	216	1,259	571
3 x 2½	80 x 65	8	52	24	27	216	1,393	632
4 x 2†	100 x 50	4	38	17	27	108	1,026	465
4 x 3	100 x 80	4	40	18	27	108	1,080	490

▲Weights shown are for black; †Black only; ■ Galvanized Only

Palleted
Malleable Iron Fittings
(black or galvanized) (cont.)

Size		Pcs./Carton	▲Wt./Carton		No. Cartons	No. Pcs	▲Wt./ pallet	
NPS	*DN*		Lbs	*Kg*			Lbs	*Kg*
90° Streed Elbow: Fig. 1170 (Pg. pf-69)								
¼	8	60	10.0	4.5	177	10,620	1,805	819
⅜	10	30	8.0	3.6	177	5,310	1,381	626
½	15	160	75	34	27	4,320	2,030	921
¾	20	100	68	31	27	2,700	1,836	833
1	25	60	62	28	27	1,620	1,685	764
1¼	32	30	48	22	27	810	1,296	588
1½	40	20	44	20	27	540	1,188	539
2	50	8	29	13	27	216	775	352
3	80	4	38	17	27	108	1,031	468
Floor Flange: Fig. 1190 (Pg. pf-64)								
½	15	120	66	30	27	3,240	1,779	807
¾	20	80	43	20	27	2,160	1,166	529
1	25	60	46	21	27	1,620	1,231	558
1¼	32	50	45	20	27	1,350	1,215	551
1½	40	40	48	22	27	1,080	1,296	588
2	50	30	60	27	27	810	1,610	730

▲Weights shown are for black; † Black only; ■ Galvanized Only

Palleted
Cast Iron Fittings
(black or galvanized)

Size		Pcs./Carton	Sold Box Only	▲Wt./Carton		No. Cartons	No. Pcs	▲Wt./ pallet	
NPS	*DN*			Lbs	*Kg*			Lbs	*Kg*
90° Elbow: Fig.351 (Pg. pf-76)									
½	15	150	❑blk	57	26	39	5,850	2,223	1,008
¾†	20	100	❑blk	62	28	39	3,900	2,418	1,097
1	25	45	❑blk	43	20	39	1,755	1,667	756
1¼†	32	25	❑blk	37	17	39	975	1,433	650
1½†	40	15	❑blk	29	13	39	585	1,129	512
2	50	20	❑blk	61	28	20	400	1,212	550
Reducing Elbow: Fig.352 (Pg. pf-78)									
¾ x ½†	20 x 15	120		59	27	39	4,680	2,293	1,040
1 x ½†	25 x 15	70	❑blk	43	20	39	2,730	1,693	768
1 x ¾†	25 x 20	70	❑blk	55	25	39	2,730	2,129	966
1¼ x ½†	32 x 15	55	❑blk	52	24	39	2,145	2,016	914
1¼ x ¾†	32 x 20	50	❑blk	55	25	39	1,950	2,126	964
1¼ x 1†	32 x 25	40	❑blk	47	21	39	1,560	1,825	828
1½ x 1†	40 x 25	30	❑blk	44	20	39	1,170	1,708	775
1½ x 1¼†	40 x 32	25	❑blk	44	20	39	975	1,697	770
2 x 1¼†	50 x 32	25	❑blk	56	25	20	500	1,125	510
2 x 1½†	50 x 40	25	❑blk	65	29	20	500	1,295	587
45° Elbow: Fig.356 (Pg. pf-77)									
½†	15	150		56	25	39	5,850	2,165	982
¾	20	100		55	25	39	3,900	2,145	973
1	25	60	❑blk	51	23	39	2,340	1,989	902
1¼†	32	35		48	22	39	1,365	1,856	842
1½†	40	25		45	20	39	975	1,745	792
2†	50	20	❑blk	56	25	20	400	1,120	508
Tee: Fig.358 (Pg. pf-77)									
½†	15	100		54	24	39	3,900	2,106	955
¾	20	60		50	23	39	2,340	1,966	892
1	25	30	❑blk	39	18	39	1,170	1,521	690
1¼†	32	20	❑blk	41	19	39	780	1,583	718
1½†	40	20	❑blk	51	23	20	400	1,020	463
2†	50	10	❑blk	42	19	20	200	832	377

▲Weights shown are for black; †Black only; ■ Galvanized Only

❑blk - Sold in box only for Black finish, ❑gal - Sold in box only for Galvanized finish, ❑ - Sold in box only for both finish

Palleted
Cast Iron Fittings
(black or galvanized) (cont.)

Size		Pcs./Carton	Sold Box Only	▲Wt./Carton		No. Cartons	No. Pcs	▲Wt./ pallet	
NPS	DN			Lbs	Kg			Lbs	Kg
Reducing Tee: Fig.359 (Pg. pf-79-84)									
¾ x ¾ x ½†	20 x 20 x 15	70		53	24	39	2,730	2,075	941
1 x ½ x 1†	25 x 15 x 25	45	❑blk	46	21	39	1,755	1,808	820
1 x ¾ x ¾†	25 x 20 x 20	50		49	22	39	1,950	1,911	867
1 x 1 x ½†	25 x 25 x 15	50	❑blk	49	22	39	1,950	1,892	858
1 x 1 x ¾†	25 x 25 x 20	45		50	23	20	900	999	453
1 x 1 x 1¼†	25 x 25 x 32	20	❑blk	31	14	39	780	1,217	552
1¼ x ½ x 1¼†	32 x 15 x 32	25		40	18	39	975	1,550	703
1¼ x ¾ x 1¼†	32 x 20 x 32	25		43	20	39	975	1,667	756
1¼ x 1 x ½†	32 x 25 x 15	35	❑blk	43	20	39	1,365	1,679	762
1¼ x 1 x ¾†	32 x 25 x 20	30		41	19	20	600	810	367
1¼ x 1 x 1†	32 x 25 x 25	20	❑blk	31	14	39	780	1,193	541
1¼ x 1 x 1¼†	32 x 25 x 32	20	❑blk	35	16	39	780	1,373	623
1¼ x 1¼ x ½	32 x 32 x 15	30	❑blk	43	20	39	1,170	1,685	764
1¼ x 1¼ x ¾†	32 x 32 x 20	25	❑blk	40	18	20	500	790	358
1¼ x 1¼ x 1†	32 x 32 x 25	20	❑blk	35	16	39	780	1,373	623
1½ x ½ x 1½†	40 x 15 x 40	20	❑blk	42	19	20	400	840	381
1½ x 1¼ x ½†	40 x 32 x 15	25	❑blk	42	19	39	975	1,628	738
1½ x 1¼ x ¾†	40 x 32 x 20	20	❑blk	36	16	20	400	712	323
1½ x 1¼ x 1†	40 x 32 x 25	20	❑blk	38	17	39	780	1,490	676
1½ x 1¼ x 1¼†	40 x 32 x 32	20	❑blk	46	21	39	780	1,802	817
1½ x 1½ x ½†	40 x 40 x 15	20	❑blk	37	17	39	780	1,435	651
1½ x 1½ x ¾†	40 x 40 x 20	20	❑blk	38	17	39	780	1,498	679
1½ x 1½ x 1†	40 x 40 x 25	30	❑blk	64	29	20	600	1,272	577
1½ x 1½ x 1¼†	40 x 40 x 32	25	❑blk	59	27	20	500	1,185	538
1½ x 1½ x 2†	40 x 40 x 50	10	❑blk	31	14	39	390	1,209	548
2 x ½ x 2†	50 x 15 x 50	10		33	15	20	200	660	299
2 x ¾ x 2†	50 x 20 x 50	15		50	23	20	300	993	450
2 x 1 x 2†	50 x 25 x 50	15	❑blk	50	23	20	300	990	449
2 x 1¼ x 2†	50 x 32 x 50	15	❑blk	52	24	20	300	1,047	475
2 x 1½ x ½	50 x 40 x 15	25	❑blk	57	26	20	500	1,145	519
2 x 1½ x 1†	50 x 40 x 25	20	❑blk	53	24	20	400	1,056	479
2 x 1½ x 1½†	50 x 40 x 40	15		47	21	20	300	945	429
2 x 1½ x 2†	50 x 40 x 50	15	❑blk	55	25	20	300	1,107	502
2 x 2 x ½†	50 x 50 x 15	20	❑blk	53	24	20	400	1,064	483
2 x 2 x ¾†	50 x 50 x 20	20	❑blk	57	26	20	400	1,144	519
2 x 2 x 1†	50 x 50 x 25	15	❑blk	46	21	20	300	915	415
2 x 2 x 1¼†	50 x 50 x 32	15	❑blk	51	23	20	300	1,014	460
2 x 2 x 1½†	50 x 50 x 40	15	❑blk	55	25	20	300	1,095	497
Hex Coupling: Fig.366 (Pg. pf-87)									
1†	25	60		53	24	39	2,340	2,059	934

▲Weights shown are for black; †Black only; ■ Galvanized Only

❑blk - Sold in box only for Black finish, ❑gal - Sold in box only for Galvanized finish, ❑ - Sold in box only for both finish

Palleted
Cast Iron Fittings
(black or galvanized) (cont.)

Size		Pcs./Carton	Sold Box Only	▲Wt./Carton		No. Cartons	No. Pcs	▲Wt./ pallet	
NPS	DN			Lbs	Kg			Lbs	Kg
Reducer: Fig.367 (Pg. pf-88)									
1 x ½†	25 x 15	80	❑blk	48	22	39	3,120	1,872	849
1 x ¾†	25 x 20	70	❑blk	48	22	39	2,730	1,856	842
Hex Bushing: Fig.383 (Pg. pf-89)									
1½ x ¼	40 x 8	50		22	10	48	2,400	1,056	479
1½ x ⅜	40 x 10	50		20	9.1	48	2,400	960	435
1½ x ½	40 x 15	50	❑blk	21	10	48	2,400	1,008	457
1½ x ¾	40 x 20	50	❑	23	10	48	2,400	1,080	490
1½ x 1	40 x 25	50	❑	25	11	48	2,400	1,200	544
2 x ¼	50 x 8	30		19	8.6	48	1,440	893	405
2 x ⅜	50 x 10	30		20	9.1	48	1,440	979	444
2 x ½	50 x 15	30	❑blk	18	8.2	48	1,440	864	392
2 x ¾	50 x 20	30	❑	21	10	48	1,440	994	451
2 x 1	50 x 25	30	❑	22	10	48	1,440	1,066	484
2 x 1¼	50 x 32	30	❑	24	11	48	1,440	1,138	516
Square Head Plugs (Cored): Fig.387 (Pg. pf-91)									
¾	20	240	❑blk	36	16	48	11,520	1,728	784
1	25	120	❑	30	14	48	5,760	1,440	653
1¼	32	60	❑	25	11	48	2,880	1,181	536
1½	40	50	❑	27	12	48	2,400	1,272	577
2	50	30	❑	27	12	48	1,440	1,282	582
Square Head Plugs (Solid): Fig.388 (Pg. pf-91)									
½	15	300	❑blk	33	15	48	14,400	1,584	718
¾	20	240		41	19	48	11,520	1,958	888
1	25	120	❑blk	38	17	48	5,760	1,843	836
1¼	32	60		27	12	48	2,880	1,272	577
1½	40	50		38	17	48	2,400	1,824	827
2	50	30		37	17	48	1,440	1,786	810
Bar Plugs (Countersunk): Fig.390 (Pg. pf-91)									
1	25	120		23	10	48	5,760	1,094	496
1¼	32	60		19	8.6	48	2,880	922	418
1½	40	50		24	11	48	2,400	1,128	512
2	50	30		25	11	48	1,440	1,210	549
Floor Flange: Fig.1006 (Pg. pf-90)									
½	15	90		52	24	39	3,510	2,036	924
¾	20	90		64	29	39	3,510	2,492	1,130
1	25	60		62	28	39	2,340	2,434	1,104
1½	40	35		49	22	39	1,365	1,897	860
1¼	32	50		51	23	39	1,950	1,989	902

▲Weights shown are for black; †Black only; ■ Galvanized Only

❑blk - Sold in box only for Black finish, ❑gal - Sold in box only for Galvanized finish, ❑ - Sold in box only for both finish

Cartons
Steel Pipe Nipples

Size		Cartons			Pallets
		Pcs.	Weight		Cartons
NPS	*DN*		Lbs	*Kg*	
1¼	32	Close	Close	Close	3.5
		2	50	23	5.5
		2½	65	29	7.0
		3	80	36	9.0
		3½	90	41	11.0
		4	100	45	12.75
		4½	114	52	14.5
		5	125	57	16.25
		5½	140	64	17.75
		6	150	68	20.0
		7	175	79	22.5
		8	200	91	27.0
		9	225	102	30.0
		10	250	113	13.8
		11	279	127	14.6
		12	300	136	16.0
1½	40	Close	Close	Close	7.75
		2	50	23	9.25
		2½	65	29	11.5
		3	80	36	14.5
		3½	90	41	17.5
		4	100	45	20.0
		4½	114	52	21.75
		5	125	57	24.75
		5½	140	64	27.5
		6	150	68	30.75
		7	175	79	35.25
		8	200	91	16.1
		9	225	102	19.3
		10	250	113	21.3
		11	279	127	22.8
		12	300	136	25.7
2	50	Close	Close	Close	11.5
		2½	65	29	15.5
		3	80	36	20.0
		3½	90	41	23.5
		4	100	45	27.25
		4½	114	52	30.5
		5	125	57	34.5
		5½	140	64	39.5
		6	150	68	34.0
		7	175	79	39.6
		8	200	91	22.6
		9	225	102	25.9
		10	250	113	29.9
		11	279	127	32.4
		12	300	136	34.8

Size		Cartons			Pallets
		Pcs.	Weight		Cartons
NPS	*DN*		Lbs	*Kg*	
2½	65	Close	Close	Close	22
		3	80	36	25.25
		3½	90	41	33.5
		4	100	45	37.0
		4½	114	52	33.6
		5	125	57	39.0
		5½	140	64	32.7
		6	150	68	37.8
		7	175	79	30.7
		8	200	91	35.10
		9	225	102	39.0
		10	250	113	22.55
		11	279	127	24.1
		12	300	136	27.5
3	80	Close	Close	Close	30.50
		3	80	36	33.50
		3½	90	41	34.0
		4	100	45	39.60
		4½	114	52	32.70
		5	125	57	26.50
		5½	140	64	29.60
		6	150	68	34.0
		7	175	79	38.60
		8	200	91	22.70
		9	225	102	26.25
		10	250	113	28.55
		11	279	127	32.30
		12	300	136	34.45

Master Containers for "25 packs"
Steel Pipe Nipples in "25 packs"
Standard/Sch. 40

Diameter		length		inner			Master		
				pcs/ inner	Wt./ inner		pcs/ master	Wt./ master	
NPS	*DN*	NPS	*DN*		lbs	*Kg*		lbs	*Kg*
⅛	6	Close	Close	25	0.50	0.23	450	9.0	4.1
		1½	40	25	0.75	0.34	450	14	6.1
		2	50	25	1.00	0.45	450	18	8.2
		2½	65	25	1.3	0.57	450	23	10
		3	80	25	1.5	0.68	450	27	12
		3½	90	25	1.8	0.79	450	32	14
		4	100	25	2.0	0.91	450	36	16
		4½	114	25	2.3	1.0	200	18	8.2
		5	125	25	2.5	1.1	200	20	9.1
		5½	140	25	2.8	1.2	200	22	10
		6	150	25	3.0	1.4	200	24	11
		7	175	25	3.5	1.6	–	–	–
		8	200	25	4.0	1.8	–	–	–
		9	225	25	4.5	2.0	–	–	–
		10	250	25	5.0	2.3	–	–	–
		11	275	25	5.5	2.5	–	–	–
		12	300	25	6.0	2.7	–	–	–
¼	8	Close	Close	25	0.50	0.23	450	9.0	4.1
		1½	40	25	1.00	0.45	450	18	8.2
		2	50	25	1.5	0.68	450	27	12
		2½	65	25	2.0	0.91	450	36	16
		3	80	25	2.5	1.1	400	40	18
		3½	90	25	3.0	1.4	325	39	18
		4	100	25	3.3	1.5	300	39	18
		4½	114	25	3.8	1.7	200	30	14
		5	125	25	4.3	1.9	200	34	15
		5½	140	25	4.5	2.0	200	36	16
		6	150	25	5.0	2.3	200	40	18
		7	175	25	6.0	2.7	–	–	–
		8	200	25	7.0	3.2	–	–	–
		9	225	25	7.8	3.5	–	–	–
		10	250	25	8.5	3.9	–	–	–
		11	275	25	9.5	4.3	–	–	–
		12	300	25	10	4.6	–	–	–
⅜	10	Close	Close	25	1.00	0.45	450	18	8.2
		1½	40	25	1.5	0.68	450	27	12
		2	50	25	2.0	0.91	450	36	16
		2½	65	25	2.5	1.1	400	40	18
		3	80	25	3.3	1.5	200	26	12
		3½	90	25	3.8	1.7	200	30	14
		4	100	25	4.5	2.0	200	36	16
		4½	114	25	5.0	2.3	200	40	18
		5	125	25	5.5	2.5	175	39	17
		5½	140	25	6.0	2.7	150	36	16
		6	150	25	6.5	2.9	175	39	18
		8	200	25	8.8	4.0	–	–	–
		9	225	25	9.8	4.4	–	–	–
		10	250	25	12	5.4	–	–	–
		11	275	25	12	5.6	–	–	–
		12	300	25	14	6.1	–	–	–

Standard+ welded steel (black and galvanized▲) • sizes .125 to 3 NPS *(8 to 80 DN)*+
Schedule 40 seamless steel pressure pipe (black only) • sizes .125 to 1.5 NPS *(8 to 40 DN)* △
Schedule 40 seamless steel pipe (black only) • sizes 2 to 3 NPS *(50 to 80 DN)* △

Master Containers for "25 packs"
Steel Pipe Nipples in "25 packs"
Standard/Sch. 40 (cont.)

Diameter		length		inner			Master		
				pcs/ inner	Wt./ inner		pcs/ master	Wt./ master	
NPS	*DN*	NPS	*DN*		lbs	*Kg*		lbs	*Kg*
½	15	Close	Close	25	1.5	0.68	450	27	12
		1½	40	25	2.0	0.91	200	16	7.3
		2	50	25	2.8	1.2	200	22	10
		2½	65	25	3.5	1.6	200	28	13
		3	80	25	4.5	2.0	200	36	16
		3½	90	25	5.5	2.5	–	–	–
		4	100	25	6.3	2.8	–	–	–
		4½	114	25	7.3	3.3	–	–	–
		5	125	25	8.0	3.6	–	–	–
		5½	140	25	9.3	4.2	–	–	–
		6	150	25	9.8	4.4	–	–	–
		7	175	25	12	5.2	–	–	–
		8	200	25	13	5.9	–	–	–
		9	225	25	16	7.0	–	–	–
		10	250	25	17	7.5	–	–	–
		11	275	25	19	8.4	–	–	–
		12	300	25	20	9.1	–	–	–
¾	20	Close	Close	25	2.5	1.1	200	20	9.1
		1½	40	25	2.8	1.2	200	22	10
		2	50	25	4.0	1.8	200	32	15
		2½	65	25	5.0	2.3	–	–	–
		3	80	25	6.3	2.8	–	–	–
		3½	90	25	7.8	3.5	–	–	–
		4	100	25	8.8	4.0	–	–	–
		4½	114	25	9.8	4.4	–	–	–
		5	125	25	12	5.2	–	–	–
		5½	140	25	12	5.4	–	–	–
		6	150	25	14	6.4	–	–	–
		7	175	25	16	7.0	–	–	–
		8	200	25	18	8.1	–	–	–
		9	225	25	21	9	–	–	–
		10	250	25	22	10	–	–	–
		11	275	25	25	11	–	–	–
		12	300	25	28	13	–	–	–
1	25	Close	Close	25	3.5	1.6	200	28	13
		–	–	–	–	–	–	–	–
		2	50	25	5.5	2.5	175	39	17
		2½	65	25	7.0	3.2	–	–	–
		3	80	25	9.0	4.1	–	–	–
		3½	90	25	11	5.0	–	–	–
		4	100	25	13	5.8	–	–	–
		4½	114	25	15	6.6	–	–	–
		5	125	25	16	7.4	–	–	–
		5½	140	25	18	8.1	–	–	–
		6	150	25	20	9.1	–	–	–
		7	175	25	23	10	–	–	–
		8	200	25	27	12	–	–	–
		9	225	25	30	14	–	–	–
		10	250	25	35	16	–	–	–
		11	275	25	37	17	–	–	–
		12	300	25	40	18	–	–	–

Standard+ welded steel (black and galvanized▲) • sizes .125 to 3 NPS *(8 to 80 DN)*+
Schedule 40 seamless steel pressure pipe (black only) • sizes .125 to 1.5 NPS *(8 to 40 DN)* △
Schedule 40 seamless steel pipe (black only) • sizes 2 to 3 NPS *(50 to 80 DN)* △

Master Containers for "25 packs"
Steel Pipe Nipples in "25 packs"
Standard/Sch. 40 (cont.)

Diameter		length		inner			Master		
				pcs/ inner	Wt./ inner		pcs/ master	Wt./ master	
NPS	*DN*	NPS	*DN*		lbs	*Kg*		lbs	*Kg*
1¼	32	Close	Close	25	3.5	1.6	–	–	–
		–	–	–	00–	00–	–	–	–
		2	50	25	5.5	2.5	–	–	–
		2½	65	25	7.0	3.2	–	–	–
		3	80	25	9.0	4.1	–	–	–
		3½	90	25	11	5.0	–	–	–
		4	100	25	13	5.8	–	–	–
		4½	114	25	15	6.6	–	–	–
		5	125	25	16	7.4	–	–	–
		5½	140	25	18	8.1	–	–	–
		6	150	25	20	9.1	–	–	–
		7	175	25	23	10	–	–	–
		8	200	25	27	12	–	–	–
		9	225	25	30	14	–	–	–
		10	250	10	14	6.3	–	–	–
		11	275	10	15	6.6	–	–	–
		12	300	10	16	7.3	–	–	–
1½	40	Close	Close	25	7.8	3.5	–	–	–
		–	–	–	00–	00–	–	–	–
		2	50	25	9.3	4.2	–	–	–
		2½	65	25	12	5.2	–	–	–
		3	80	25	15	6.6	–	–	–
		3½	90	25	18	7.9	–	–	–
		4	100	25	20	9.1	–	–	–
		4½	114	25	22	10	–	–	–
		5	125	25	25	11	–	–	–
		5½	140	25	28	12	–	–	–
		6	150	25	31	14	–	–	–
		7	175	25	35	16	–	–	–
		8	200	25	16	7.3	–	–	–
		9	225	10	19	8.8	–	–	–
		10	250	10	21	10	–	–	–
		11	275	10	23	10	–	–	–
		12	300	10	26	12	–	–	–
2	50	Close	Close	25	12	5.2	–	–	–
		–	–	–	00–	00–	–	–	–
		–	–	–	00–	00–	–	–	–
		2½	65	25	16	7.0	–	–	–
		3	80	25	20	9.1	–	–	–
		3½	90	25	24	11	–	–	–
		4	100	25	27	12	–	–	–
		4½	114	25	31	14	–	–	–
		5	125	25	35	16	–	–	–
		5½	140	25	40	18	–	–	–
		6	150	20	34	15	–	–	–
		7	175	20	40	18	–	–	–
		8	200	10	23	10	–	–	–
		9	225	10	26	12	–	–	–
		10	250	10	30	14	–	–	–
		11	275	10	32	15	–	–	–

Standard+ welded steel (black and galvanized▲) • sizes .125 to 3 NPS *(8 to 80 DN)+*
Schedule 40 seamless steel pressure pipe (black only) • sizes .125 to 1.5 NPS *(8 to 40 DN)* △
Schedule 40 seamless steel pipe (black only) • sizes 2 to 3 NPS *(50 to 80 DN)* △

Master Containers for "25 packs"
Steel Pipe Nipples in "25 packs"
Standard/Sch. 40 (cont.)

Diameter		length		inner			Master		
				pcs/ inner	Wt./ inner		pcs/ master	Wt./ master	
NPS	*DN*	NPS	*DN*		lbs	*Kg*		lbs	*Kg*
2½	2.5	Close	Close	25	22	10	–	–	–
		3	80	25	25	11	–	–	–
		3½	90	25	34	15	–	–	–
		4	100	25	37	17	–	–	–
		4½	114	20	34	15	–	–	–
		5	125	20	39	18	–	–	–
		5½	140	15	33	15	–	–	–
		6	150	15	38	17	–	–	–
		7	175	10	31	14	–	–	–
		8	200	10	35	16	–	–	–
		9	225	10	39	18	–	–	–
		10	250	5	23	10	–	–	–
		11	275	5	24	11	–	–	–
		12	300	5	28	12	–	–	–
3	80	Close	Close	25	31	14	–	–	–
		3	80	25	34	15	–	–	–
		3½	90	20	34	15	–	–	–
		4	100	20	40	18	–	–	–
		4½	114	15	33	15	–	–	–
		5	125	10	27	12	–	–	–
		5½	140	10	30	13	–	–	–
		6	150	10	34	15	–	–	–
		7	175	10	39	18	–	–	–
		8	200	5	23	10	–	–	–
		9	225	5	26	12	–	–	–
		10	250	5	29	13	–	–	–
		11	275	5	32	15	–	–	–
		12	300	5	34	16	–	–	–
		12	300	10	35	16	–	–	–

Standard+ welded steel (black and galvanized▲) • sizes .125 to 3 NPS *(8 to 80 DN)*+
Schedule 40 seamless steel pressure pipe (black only) • sizes .125 to 1.5 NPS *(8 to 40 DN)* △
Schedule 40 seamless steel pipe (black only) • sizes 2 to 3 NPS *(50 to 80 DN)* △

Notes:

■ Some lengths of 2, 2.5 and 3 NPS *(60, 65 and 80 DN)* nipples are packed less than 25 pieces to a carton as indicated under "no. of pieces."

▲ Weights shown are for black nipples.

▲ Schedule 40 and 80 nipples cartoned only in lengths close to 6-inch. *(150 DN)*

\+ Extra Strong galvanized welded nipples cartoned only in pipe sizes .5 – 2 NPS *(15 to 50 DN)* and lengths close to 6 NPS.

Master Containers for “25 packs”
Steel Pipe Nipples in “25 packs”
XS/Sch. 80

Diameter		length		inner			Master		
				pcs/ inner	Wt./ inner		pcs/ master	Wt./ master	
NPS	*DN*	NPS	*DN*		lbs	*Kg*		lbs	*Kg*
⅛	6	Close	Close	25	.5	.5	450	9.0	4.1
		1½	40	25	1.00	0.45	450	18	8.2
		2	50	25	1.3	0.57	450	23	10
		2½	65	25	1.5	0.68	450	27	12
		3	80	25	2.0	0.91	450	36	16
		3½	90	25	2.3	1.0	200	38	17
		4	100	25	2.5	1.1	200	40	18
		4½	114	25	3.0	1.4	200	24	11
		5	125	25	3.3	1.5	200	26	12
		5½	140	25	3.5	1.6	200	28	13
		6	150	25	4.0	1.8	200	32	15
		7	175	25	4.5	2.0	–	–	–
		8	200	25	5.3	2.4	–	–	–
		9	225	25	5.8	2.6	–	–	–
		10	250	25	6.5	2.9	–	–	–
		11	275	25	7.0	3.2	–	–	–
		12	300	25	7.8	3.5	–	–	–
¼	8	Close	Close	25	1.00	0.45	450	18	8.2
		1½	40	25	1.5	0.68	450	27	12
		2	50	25	2.0	0.91	450	36	16
		2½	65	25	2.5	1.1	200	40	18
		3	80	25	3.3	1.5	200	39	18
		3½	90	25	3.8	1.7	200	38	17
		4	100	25	4.5	2.0	200	36	16
		4½	114	25	5.0	2.3	–	–	–
		5	125	25	5.5	2.5	–	–	–
		5½	140	25	6.3	2.8	–	–	–
		6	150	25	7.0	3.2	–	–	–
		7	175	25	8.0	3.6	–	–	–
		8	200	25	8.8	4.0	–	–	–
		9	225	25	10.0	4.5	–	–	–
		10	250	25	11	5.0	–	–	–
		11	275	25	12	5.4	–	–	–
		12	300	25	13	6.0	–	–	–
⅜	10	Close	Close	25	1.3	0.57	450	23	10
		1½	40	25	2.0	0.91	450	36	16
		2	50	25	3.0	1.4	200	39	18
		2½	65	25	3.5	1.6	200	39	17
		3	80	25	4.5	2.0	200	36	16
		3½	90	25	5.3	2.4	–	–	–
		4	100	25	6.0	2.7	–	–	–
		4½	114	25	6.5	2.9	–	–	–
		5	125	25	7.3	3.3	–	–	–
		5½	140	25	8.0	3.6	–	–	–
		6	150	25	8.8	4.0	–	–	–
		7	175	25	11	4.8	–	–	–
		8	200	25	12	5.4	–	–	–
		9	225	25	14	6.1	–	–	–
		10	250	25	15	6.8	–	–	–
		11	275	25	17	7.5	–	–	–
		12	300	25	18	8.2	–	–	–

Master Containers for "25 packs"
Steel Pipe Nipples in "25 packs"
XS/Sch. 80 (cont.)

Diameter		length		inner			Master		
				pcs/ inner	Wt./ inner		pcs/ master	Wt./ master	
NPS	*DN*	NPS	*DN*		lbs	*Kg*		lbs	*Kg*
½	15	Close	Close	25	2.0	0.91	450	36	16
		1½	40	25	3.0	1.4	200	24	11
		2	50	25	4.0	1.8	200	32	15
		2½	65	25	4.3	1.9	200	34	15
		3	80	25	5.0	2.3	200	40	18
		3½	90	25	7.3	3.3	–	–	–
		4	100	25	8.5	3.9	–	–	–
		4½	114	25	9.5	4.3	–	–	–
		5	125	25	11	4.8	–	–	–
		5½	140	25	12	5.4	–	–	–
		6	150	25	13	5.9	–	–	–
		7	175	25	15	6.9	–	–	–
		8	200	25	18	7.9	–	–	–
		9	225	25	20	9.0	–	–	–
		10	250	25	22	10	–	–	–
		11	275	25	25	11	–	–	–
		12	300	25	27	12	–	–	–
¾	20	Close	Close	25	3.5	1.6	200	28	13
		1½	40	25	3.8	1.7	200	30	14
		2	50	25	5.0	2.3	200	40	18
		2½	65	25	6.8	3.1	–	–	–
		3	80	25	8.3	3.7	–	–	–
		3½	90	25	9.5	4.3	–	–	–
		4	100	25	11	5.1	–	–	–
		4½	114	25	13	5.8	–	–	–
		5	125	25	15	6.6	–	–	–
		5½	140	25	16	7.3	–	–	–
		6	150	25	17	7.7	–	–	–
		7	175	25	21	9	–	–	–
		8	200	25	24	11	–	–	–
		9	225	25	27	12	–	–	–
		10	250	25	30	14	–	–	–
		11	275	25	33	15	–	–	–
		12	300	25	36	16	–	–	–
1	25	Close	Close	25	3.5	1.6	200	28	13
		–	–	–	–	–	–	–	–
		2	50	25	5.5	2.5	–	–	–
		2½	65	25	7.0	3.2	–	–	–
		3	80	25	9.0	4.1	–	–	–
		3½	90	25	11	5.0	–	–	–
		4	100	25	13	5.8	–	–	–
		4½	114	25	15	6.6	–	–	–
		5	125	25	16	7.4	–	–	–
		5½	140	25	18	8.1	–	–	–
		6	150	25	20	9.1	–	–	–
		7	175	25	23	10	–	–	–
		8	200	25	27	12	–	–	–
		9	225	25	30	14	–	–	–
		10	250	25	35	16	–	–	–
		11	275	25	37	17	–	–	–
		12	300	25	40	18	–	–	–

Master Containers for “25 packs”
Steel Pipe Nipples in “25 packs”
XS/Sch. 80 (cont.)

Diameter		length		inner			Master		
				pcs/ inner	Wt./ inner		pcs/ master	Wt./ master	
NPS	*DN*	NPS	*DN*		lbs	*Kg*		lbs	*Kg*
1¼	32	Close	Close	8.0	3.6	1.7	–	–	–
		2	50	25	11	4.9	–	–	–
		2½	65	25	14	6.2	–	–	–
		3	80	25	16	7.3	–	–	–
		3½	90	25	14	6.2	–	–	–
		4	100	25	23	10	–	–	–
		4½	114	25	26	12	–	–	–
		5	125	25	29	13	–	–	–
		5½	140	25	31	14	–	–	–
		6	150	25	35	16	–	–	–
		7	175	25	41	18	–	–	–
		8	200	15	28	13	–	–	–
		9	225	15	32	14	–	–	–
		10	250	10	24	11	–	–	–
		11	275	10	26	12	–	–	–
		12	300	10	29	13	–	–	–
1½	40	Close	Close	25	11	5.1	–	–	–
		2	50	25	13	5.7	–	–	–
		2½	65	25	16	7.4	–	–	–
		3	80	25	20	9.0	–	–	–
		3½	90	25	25	11	–	–	–
		4	100	25	28	12	–	–	–
		4½	114	25	32	14	–	–	–
		5	125	25	35	16	–	–	–
		5½	140	25	38	17	–	–	–
		6	150	20	33	15	–	–	–
		7	175	20	39	18	–	–	–
		8	200	10	23	10	–	–	–
		9	225	10	26	12	–	–	–
		10	250	10	29	13	–	–	–
		11	275	10	32	14	–	–	–
		12	300	10	35	16	–	–	–
2	50	Close	Close	25	19	8.4	–	–	–
		2½	65	25	23	10	–	–	–
		3	80	25	27	12	–	–	–
		3½	90	25	34	15	–	–	–
		4	100	25	39	17	–	–	–
		4½	114	20	35	16	–	–	–
		5	125	20	39	18	–	–	–
		5½	140	10	22	10	–	–	–
		6	150	10	24	11	–	–	–
		7	175	10	27	12	–	–	–
		8	200	10	31	14	–	–	–
		9	225	10	36	16	–	–	–
		10	250	10	40	18	–	–	–
		11	275	5	22	10	–	–	–
		12	300	5	24	11	–	–	–

Master Containers for "25 packs"
Steel Pipe Nipples in "25 packs"
XS/Sch. 80 (cont.)

Diameter		length		inner			Master		
				pcs/ inner	Wt./ inner		pcs/ master	Wt./ master	
NPS	*DN*	NPS	*DN*		lbs	*Kg*		lbs	*Kg*
2½	65	Close	Close	25	–	–	–	–	–
		3	80	25	–	–	–	–	–
		3½	90	15	–	–	–	–	–
		4	100	15	–	–	–	–	–
		4½	114	15	–	–	–	–	–
		5	125	10	–	–	–	–	–
		5½	140	10	–	–	–	–	–
		6	150	10	–	–	–	–	–
		7	175	5	–	–	–	–	–
		8	200	5	–	–	–	–	–
		9	225	5	–	–	–	–	–
		10	250	5	–	–	–	–	–
		11	275	5	–	–	–	–	–
		12	300	5	–	–	–	–	–
3	80	Close	Close	25	–	–	–	–	–
		–	–	–	–	–	–	–	–
		–	–	–	–	–	–	–	–
		3	80	25	–	–	–	–	–
		3½	90	20	–	–	–	–	–
		4	100	20	–	–	–	–	–
		4½	114	15	–	–	–	–	–
		5	125	10	–	–	–	–	–
		5½	140	10	–	–	–	–	–
		6	150	10	–	–	–	–	–
		7	175	10	–	–	–	–	–
		8	200	5	–	–	–	–	–
		9	225	5	–	–	–	–	–
		10	250	5	–	–	–	–	–
		11	275	5	–	–	–	–	–
		12	300	5	–	–	–	–	–

extra strong+ welded steel (black and galvanized▲) • sizes $^{.125}$ to 3 NPS+
schedule 80 seamless steel pressure pipe (black only) • sizes $^{.125}$ to $1^{.5}$ NPS△
schedule 80 seamless steel pipe (black only) • sizes 2 to 3 NPS△

Notes:

■■ Some lengths of 2, $2^{.5}$ and 3 NPS nipples are packed less than 25 pieces to a carton as indicated under "no. of pieces."

▲ Weights shown are for black nipples.

△ Schedule 40 and 80 nipples cartoned only in lengths close to 6-inch.

\+ Extra Strong galvanized welded nipples cartoned only in pipe sizes $^{.5}$ – 2 NPS and lengths close to 6 NPS.

Nipple Assortments
standard Welded Nipples Only
(black and galvanized)

ANVIL INTERNATIONAL, INC.

Single Packs										
Length		Number of Pieces Each for Size (NPS)								
NPS	*DN*	½ (11)	¾ (11)	1 (10)	1¼ (10)	1½ (10)	2 (9)	2½ (8)	3 (8)	4 (6)
close	close	1	1	1	1	1	1	1	1	1
1½	40	1	1	–	–	–	–	–	–	–
2	50	1	1	1	1	1	–	–	–	–
2½	65	1	1	1	1	1	1	–	–	–
3	80	1	1	1	1	1	1	1	1	–
3½	90	1	1	1	1	1	1	1	1	–
4	100	1	1	1	1	1	1	1	1	1
4½	114	1	1	1	1	1	1	1	1	1
5	125	1	1	1	1	1	1	1	1	1
5½	140	1	1	1	1	1	1	1	1	1
6	150	1	1	1	1	1	1	1	1	1
Assortment Weight	lbs	2.6	3.3	4.5	6.0	7.4	9.8	13	16	22
	DN	1.2	1.5	2.0	2.7	3.4	4.4	6.0	7.2	10

Assorted Cartons															
Size		Weight		Total Pieces:	Number of Pieces Each for Size (NPS)/*(DN)*										
					close	1½	2	2½	3	3½	4	4½	5	5½	6
NPS	*DN*	lbs	*Kg*			40	50	65	80	90	100	114	125	140	150
½	15	4.6	2.1	25	4	3	3	3	2	2	2	1	2	1	2
		15	6.6	66	6	6	6	6	6	6	6	6	6	6	6
		18	8.1	100	20	10	15	10	10	5	10	5	5	5	5
¾	20	6.0	2.7	25	6	–	4	3	2	2	2	1	2	1	2
		20	9	66	6	6	6	6	6	6	6	6	6	6	6
		23	10	100	25	–	20	10	10	5	10	5	5	5	5
1	25	9.8	4.4	25	5	–	5	3	2	2	2	1	2	1	2
		27	12	60	6	–	6	6	6	6	6	6	6	6	6
		28	13	75	15	–	12	5	12	3	12	3	5	3	5
1¼	32	13	6.0	25	6	–	4	3	2	2	2	1	2	1	2
		38	17	60	6	–	6	6	6	6	6	6	6	6	6
1½	40	16	7.1	25	6	–	4	3	2	2	2	1	2	1	2
		38	17	50	5	–	5	5	5	5	5	5	5	5	5
2	50	39	18	36	4	–	–	4	4	4	4	4	4	4	4

Notes

	Dimensions	Material	Galvanizing	Thread	Pressure Rating	Federal/Other
M.I. Fittings						
Class 150/PN 20	ASME B16.3•	ASTM A-197	ASTM A-153	ASME B1 20.1+	ASME B16.3•	ASME B16.3**
Class 300/PN 50	ASME B16.3•	ASTM A-197	ASTM A-153	ASME B1 20.1+	ASME B16.3•	
M.I. Unions						
Class 150/PN 20	ASME B16.39•	ASTM A-197	ASTM A-153	ASME B1 20.1+	ASME B16.39•	ASME B16.39***
Class 250	ASME B16.39•	ASTM A-197	ASTM A-153	ASME B1 20.1+	ASME B16.39•	
Class 300/PN 50	ASME B16.39•	ASTM A-197	ASTM A-153	ASME B1 20.1+	ASME B16.39•	
Cast Iron Threaded Fittings						
Class 125	ASME B16.4•	ASTM A-126 (A)	ASTM A-153	ASME B1.20.1+	ASME B16.4•	ASME B16.4■
Class 250	ASME B16.4•	ASTM A-126 (A)	ASTM A-153	ASME B1.20.1+	ASME B16.4•	ASME B16.4■
C. 1. Plugs and Bushings						
	ASME B16.14•	ASTM A- 126 (A)	ASTM A-153	ASME B1.20.1+	ASME B16.14•	WW-P-471
C. 1. Drainage Threaded Fittings						
	ASME B16.12•	ASTM A-126 (A)	ASTM A-153	ASME B1.20.1+	ASME B16.12•	
C. 1. Flanges and Flanged Fittings						
Class 125 (1"-12")	ASME B16.1•	ASTM A- 126 (A) or (B)	ASTM A-153	ASME B1.20.1+	ASME B16.1	ASME B16.1•
Class 125 (14"-up)	ASME B16.1•	ASTM A-126 (B)	ASTM A-153	ASME B1.20.1+	ASME B16.1	ASME B16.1•
Class 250 (11"-12")	ASME B16.1•	ASTM A- 126 (A) or (B)	ASTM A-153	ASME B1.20.1+	ASME B16.1	ASME B16.1•
Class 250 (14"-up)	ASME B16.1•	ASTM A-126 (B)	ASTM A-153	ASME B1.20.1+	ASME B16.1	ASME B16.1•
Forged Steel Threaded Fittings						
Class 2000, 3000, 6000	ASME B16.11•	ASTM Al05, ASTM A182, ASTM A350		ASMEB1.20.1+	ASME B16.11•	
Pipe Nipples						
Steel Pipe - Welded	ASTM A733	ASTM A53 Type F or Type E		ASME B1.20.1+		WWN 351
Steel Pipe - Seamless (High Temp.)	ASTM A733	ASTM A106 Gr. B		ASME B1.20.1+		WWN 351
Brass		ASTM B43		ASME B1.20.1+		WWN 351

*The standard
•an American National standard (ANSI)
+ASME B1.20.1 was ANSI B2.1
■Formerly WW-P-501
**Formerly WW-P-521
***Formerly WW-U-531

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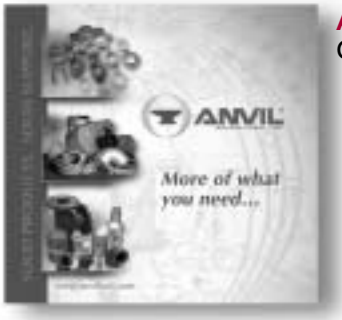

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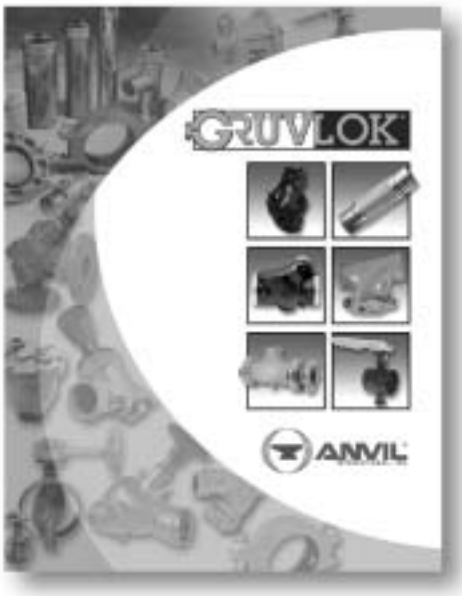

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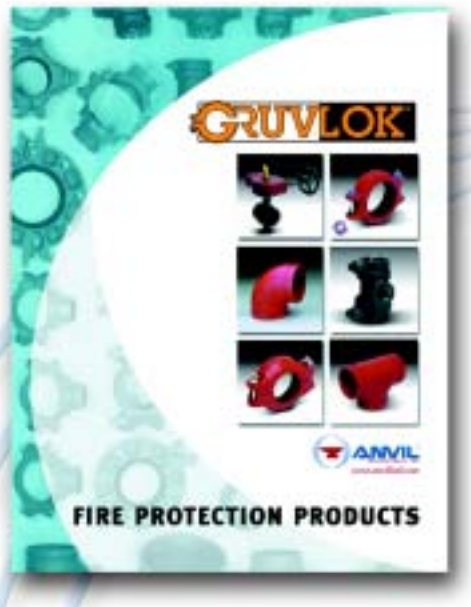

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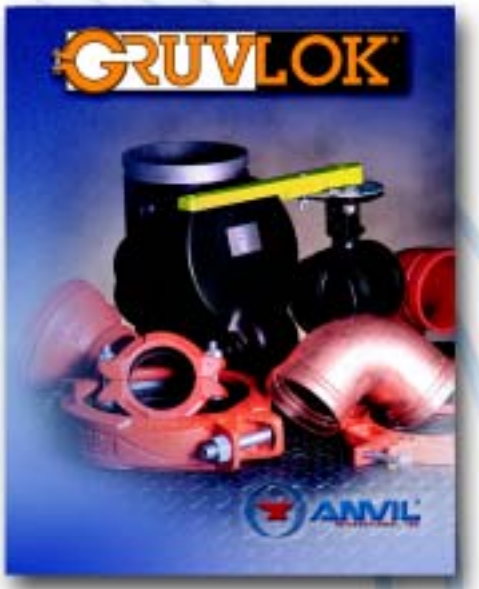

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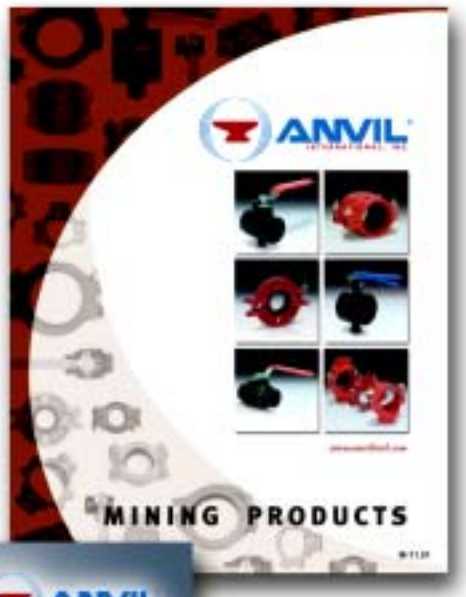

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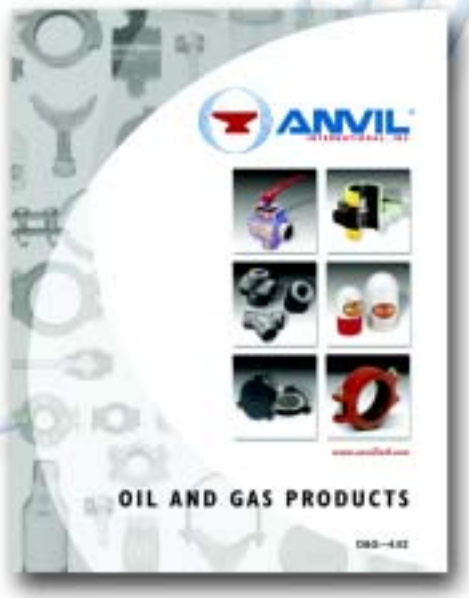

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